

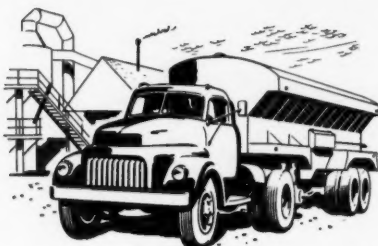
The **CONSTRUCTOR**



**DIRECTORY OF THE MORE THAN 6,000 MEMBERS OF
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA**

JULY 1952 • \$2.00

Eaton 2-Speeds let truck engines "take it easy"



OFF-THE-HIGHWAY in the toughest kind of going, or making time on the open road, Eaton 2-Speed Axles give truck engines a chance to work in their most efficient and economical speed range. By providing double the conventional number of gear ratios, Eaton 2-Speeds let drivers select the right ratio for every road and load. Stress and wear are reduced not only on engines, but on all power transmitting parts. Eaton-equipped trucks work harder, last longer, cost less to operate and maintain—are worth more on the trade in. Let your truck dealer explain how Eaton's exclusive planetary gearing, forced-flow lubricating system, and other features keep Eaton 2-Speeds on the job, at minimum cost.

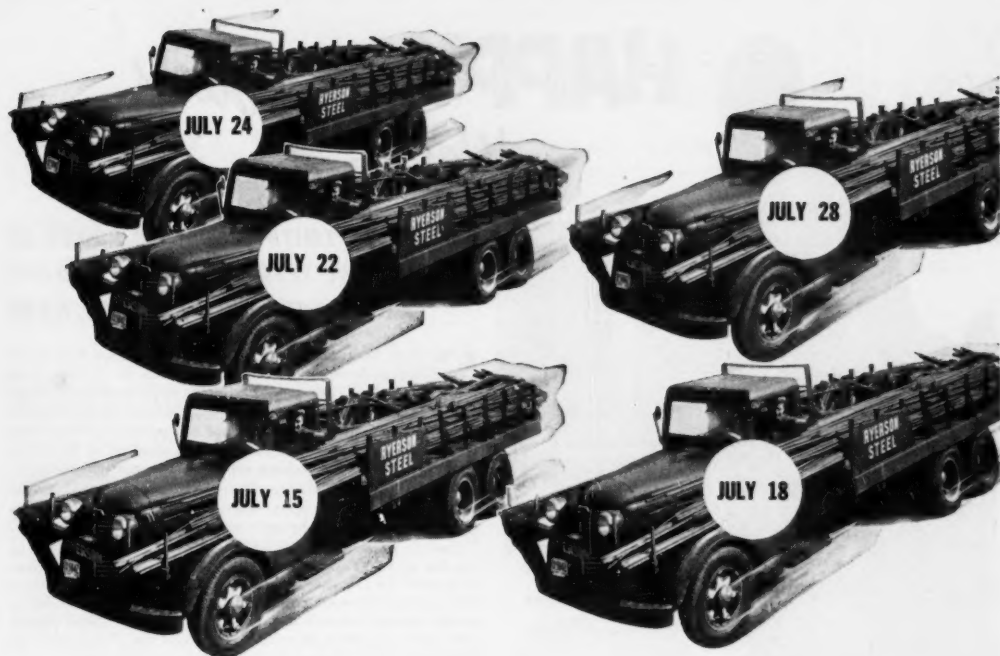
EATON *2-Speed Truck* AXLES



Axle Division
EATON MANUFACTURING COMPANY
CLEVELAND, OHIO



PRODUCTS: Sodium Cooled, Poppet, and Free Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Rotor Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Heater-Defroster Units • Snap Rings • Springtites • Spring Washers • Cold Drawn Steel • Stampings • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers



ORDER RYERSON RE-BARS *for On-Schedule delivery*

Delivery of your reinforcing steels follows a dependable schedule when you use Ryerson reinforcing service.

There are no delays, no idle crews—nor is there inconvenient piling-up of materials on the site. That's because Ryerson deliveries are flexible—can be quickly adjusted for unforeseen construction delays, or stepped up when the job jumps ahead of schedule.

You also have the advantage of complete Ryerson reinforcing service—from setting plans to steel at the site. Ryerson reinforcing bars are carefully fabricated, accurately identified with metal tags that can't tear loose. And, to simplify your purchas-

ing, you can include your other construction requirements with your re-bar order—spirals, wire mesh, joist forms—any other steel product.

On your next job, let us quote our lump sum or average pound price.

HI-BOND REINFORCING BARS FOR GREATER GRIP

First of the new high strength bars, Hi-Bond reinforcing gives stronger construction and increased resistance to tensile cracks. Hi-Bond's greater bonding strength is test proven. Every bar meets or exceeds ASM spec A305. Your Ryerson representative will give you full details.

RYERSON STEEL

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK • BOSTON • PHILADELPHIA • CINCINNATI • CLEVELAND • DETROIT
PITTSBURGH • BUFFALO • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO • SPOKANE • SEATTLE



HAPPY

'Happy Warrior'

AL SMITH WOULD BE PROUD OF THE GREAT SLUM-CLEARANCE PROJECT WHICH FITTINGLY BEARS HIS NAME



GOVERNOR ALFRED E. SMITH HOUSES
Section 2—Project No. N. Y. S.-25

Owner:
NEW YORK CITY HOUSING AUTHORITY
Architects: EGGERS & HIGGINS
Structural Engineers:
ELWYN E. SEELYE & COMPANY
General Contractor:
CAULDWELL-WINGATE COMPANY
Ready-Mix 'Incor' Concrete:
COLONIAL SAND & STONE CO., INC.
—all of New York City

East Side, West Side, All Around the Town, the New York City Housing Authority is changing the face of Gotham, with 65,000 well-built, low-rent apartments in 54 projects to date.

Just completed is Section Two of Governor Alfred E. Smith Houses. The Happy Warrior would be specially pleased with this redevelopment of 21 acres, in the shadow of Brooklyn Bridge, a stone's throw from his Oliver Street boyhood home.

As in all New York City Housing Authority projects, this one too is built with appearance and comfort uppermost in mind, but with an eye always to sound construction economies.

Case in point is the use of 'INCOR' 24-HOUR CEMENT in the five 15-to-17-story buildings in Section Two. Switchover to 'Incor' in October enabled the Contractor to maintain a well-planned 36-hour stripping schedule all Fall and Winter, saving at least 36 hours on each pour—maximum speed, lowest job overhead, minimum cost... typical of the performance of America's FIRST high early strength portland cement.

*Reg. U.S. Pat. Off.

Below, air view of downtown Manhattan, Gov. Alfred E. Smith Houses, left foreground. Upper left, Governor Smith's statue in park which is part of project.



LONE STAR CEMENT CORPORATION



LONE STAR CEMENTS COVER
THE ENTIRE CONSTRUCTION FIELD

Offices: ABILENE, TEX. • ALBANY, N. Y. • BETHLEHEM, PA. • BIRMINGHAM
BOSTON • CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS
KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK
PHILADELPHIA • RICHMOND • ST. LOUIS • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST
CEMENT PRODUCERS: 17 MODERN MILLS, 125,600,000 SACKS ANNUAL CAPACITY

The CONSTRUCTOR

CONTENTS

BUILDINGS • HIGHWAYS • AIRPORTS



RAILROADS • PUBLIC WORKS

A. G. C. DIRECTORY

- Steady Growth of Association Shows A.G.C. Vitality 21
1952 Directory of A.G.C. Membership..... 223

GENERAL

- Industrial Expansion Hits Peak, Transforms America.. 23
Steel Strike Hurting Chances of \$32 Billion Volume.. 27

LABOR RELATIONS

- Ways Listed to Lessen Jurisdictional Disputes
John T. Dunlop 33

CONTRACTS • SPECIFICATIONS

- Bill on Naming Subcontractors Reported Minus Recommendation 37
Wunderlich Case Bill Passes Senate..... 3, 49
Effect of Renegotiation Act on Contractors
John C. Hayes 50

LEGISLATION

- Administration Salvages Some Controls Before Congress Adjourns..... 63
House Passes \$2.2 Billion for Military Construction.. 64
Congress Passes Interior Department Appropriation.. 64
President Signs Federal-Aid Highway Bill..... 68

CONTRACT METHOD

- Contractors and State Force Account Crews "Compete" on Jobs..... 71
New Hampshire Resurfacing Roads by Contract..... 76
Providence Finds Municipal Construction by Contract Cheaper..... 80

NATIONAL DEFENSE

- Military Engineering Problems Unsurpassed in Korea.. 91
A-Bomb Shelters Possible in Existing Buildings..... 98

HIGHWAYS • AIRPORTS

- Toll Financing—Way to Increase Highway Construction?..... 102
Revenue Bonds Recommended for Airport Financing.. 108
Project-Adequate Roads Movement Boosted..... 108

BUILDING

- B.R.A.B. Conservation Report "Impact" on Building Field..... 117
Wherry Act Defense Housing in Full Swing..... 122
Modular Coordination to Be Adopted "in Due Time"
A. Naughton Lane 125

HEAVY • RAILROAD

- Three New Bridges to Crack Traffic Bottlenecks..... 131
Plans Approved for Mackinac Straits Bridge..... 133
Reclamation Celebrates 50th Anniversary..... 137
Tunnel Construction in Norfolk Eliminates Ferry.... 142

RESEARCH • METHODS

- Contractors in West "Driven to Ingenuity and Resourcefulness"..... Ray Day 146

EDUCATION

- Industry Welcomes N. C. State's First Construction Graduates..... 151

FOREIGN CONSTRUCTION

- Building Boom Changing Face of Mexico City
Paul Taliaferro 139

ACCIDENT PREVENTION

- President Outlines 8-Point Safety Program..... 176

CHAPTERS • BRANCHES

- Evansville Chapter Gets A.G.C. Charter..... 182

ALSO IN THIS ISSUE

- News of the Month..... 5
Constructographs..... 7, 9, 11
Consumers' Price Index..... 13
Sidelights for Contractors..... John C. Hayes 15
Editorials..... 19
Industry Relations..... 114
Boston Apprentices Contest is "Power" Test..... 168
New Equipment and Materials..... 187
A.G.C. Forms and Reports..... 204
Advertisers' Products..... 211
Index to Advertisers..... 219

EXECUTIVE DEPARTMENT

- H. E. FOREMAN Editor
JOHN C. HAYES Legal Counsel
JOHN B. SWEM Assistant Treasurer

BOARD OF DIRECTORS

- GEORGE B. WALBRIDGE President
WILLIAM MUIRHEAD Secretary-Treasurer
H. E. FOREMAN Vice-President
G. W. MAXON Director
B. L. KNOWLES Director

Editorial and Advertising Offices

Munsey Building, Washington 4, D. C. (District 1306)

Eastern Advertising Office

Empire State Building, New York City 1, S. L. Feiss,
Eastern Manager (LOngacre 4-6634)

EDITORIAL DEPARTMENT

- WILLIAM E. WOODRUFF Managing Editor
WILLIAM G. DOOLY, JR. News Editor
DUANE L. CRONK Associate Editor

BUSINESS DEPARTMENT

- M. S. BECK Business Manager
GENEVIEVE MORRIS Assistant

Western Advertising Office

30 North La Salle Street, Chicago 2, L. B. Hammond,
Western Manager (RAndolph 6-1843)

West Coast Advertising Office

M. D. Pugh, 2721 N. Marengo, Altadena, Calif. (SYcamore 7-2894)

The Official Publication of The Associated General Contractors of America, Inc.

Published monthly, Editorial and Executive Office, Munsey Building, Washington 4, D. C. Subscription price \$3.00 per year. 40¢ per copy (July \$2.00). Re-entered as second class matter June 10, 1949, at the Postoffice at Washington, D. C., under the Act of March 4, 1879. Copyright 1952 by The Constructor, Inc.

C.I.T. CORPORATION
Industrial Financing

ONE PARK AVENUE, NEW YORK 10, N. Y.

S. D. MADDOCK
PRESIDENT

July, 1952

Dear Mr. Contractor:

To complete profitable work, you need funds for equipment purchases and working capital. Although there are many places where you can get the funds, the big question is - Are the conditions of the loan right for you?

Specifically:

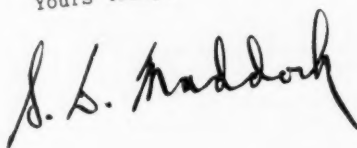
Is the amount sufficient?

Is the repayment schedule long enough to fit expected revenues from your work?

Our staff members' first job is to work with you to get a program set up that will give you the funds you need to buy new equipment, or give you working capital advances secured by equipment you own. The program must also give you a repayment schedule comfortably fitted to your estimates of revenue.

C.I.T. Corporation financing plans do the job for many top grade contractors who are our clients. We would like to discuss a program for you.

Yours truly,



One Park Avenue
NEW YORK

221 N. LaSalle St.
CHICAGO

750 Leader Building
CLEVELAND

66 Luckie St. N. W.
ATLANTA

1007 Preston Ave.
HOUSTON

416 W. 8th St.
LOS ANGELES

660 Market St.
SAN FRANCISCO

A.G.C. Directory, featured in each July issue of *THE CONSTRUCTOR*, lists a new record total of 6,136 memberships held by general contractors who perform more than 80% of all construction in this country by contract. There is a total of 121 chapters and branches covering every state and Alaska. (Story, page 21; directory starts on page 225)

Judicial review of disputes in government contracts bill, S. 2487, was passed by Senate July 3. It would offset effects of Wunderlich decision by Supreme Court, and is in line with recommendations of The Associated General Contractors of America. At press time, efforts were being made to bring it before the House under a suspension of the rules. In event it could not pass in rush of Congress, Senate action was seen as strengthening prospects of passage in next session. (Earlier story, page 49).

Senate killed S. 2907, which would require general contractors to name specialty contractors and their prices in federal bids, when it came up July 3. Several senators recorded objections to the bill. A.G.C. summarized principal objections of general contractors (page 37).

Third quarter construction controls for amusement and recreational projects, due to be relaxed by the National Production Authority, "remain unchanged because of the situation created by the work stoppage in steel mills." (page 27)

Building Research Advisory Board's long-awaited report on conservation in the building industry to the Defense Production Administration was made public June 30. It contains over 200 recommendations and is considered the "frame-work for long-term conservation equivalent to a guide for the general advancement of building technology." (page 117)

Force account vs. contract method in North Carolina "contest" on state road projects is now under way. Some slipshod state force work already noted. Because of its importance, contractors, state and federal government road officials are watching the contest with interest. (page 71)

Jurisdictional disputes can be lessened considerably if contractors observe the points recommended by John T. Dunlop, chairman of the National Joint Board for the Settlement of Jurisdictional Disputes. (page 33).

Federal aid to highway development for the next two years will amount to \$1.39 billion as voted by Congress and signed by the President late last month. The bulk of the money will go to states on a matching fund basis at the rate of \$575 million annually or \$175 million more per year than the President requested. (page 68)

Renegotiation Board, after a slow start, is beginning to make progress with its hearings. Originally the board lacked qualified personnel who understood the present Renegotiation Act which differs from earlier ones with regard to construction. John C. Hayes writes a comprehensive article on operations of the act, beginning on page 50.

Controls to be continued for 10 months to a year following President Truman's reluctant signing of the compromise Defense Production Act sent to him by Congress. Generally, the new law extends weakened wage and price controls until April 30, rent controls until September 30, allocations powers to June 30, strips Wage Stabilization Board of its powers and curbs credit control authority. (page 63)

Financing of highways by charging tolls is viewed favorably more and more by state legislatures. Pressure for adequate roads in various states has made the toll plan for raising money look like the easy answer to many. A review of the pros and cons on the subject and future toll road plans begins on page 102.

Military housing construction being carried out under the Wherry Housing Act continues at a rapid pace throughout the nation. So far, 50,000 such houses are completed or in processing and 80,000 more units, to be built and operated by private enterprise, are in the planning stage. (page 122)

St. Lawrence Seaway and power project legislation failed to pass Congress, but State Department is negotiating with Canada through an international joint commission to let New York par-

ticipate in the power end of the project. (page 67)

Airport improvement by revenue bonds was suggested as a way to "secure now the needed airport improvements which might be long-delayed or never built . . . without burden to taxpayers." (page 108)

Modular coordination will be universally adopted by the building industry "in due time" according to A. Naughton Lane, president of the Producers' Council, Inc. (page 125)

Affiliated unit in Korea, the 439th Engineer Construction Battalion, successfully launched two continuous girders 853 ft. long over the destroyed section of a Han river bridge. These girders, the longest ever known to be launched, typify the unsurpassed engineering problems that engineers serving in this theater of war must daily face and overcome. (page 91)

Industrial expansion, reaching unprecedented heights this year, is expected to top \$24.3 billion. The result is a far stronger nation than ever imagined possible. Construction industry, geared to general industrial health, will feel the tremors of declining expansion next year when such activity may fall off an estimated 20%. Corporation building for the expansion has strained internal finances, which with the meeting of mobilization goals spell a temporary slackness in industrial construction. (page 23)

Military construction bill, worth more than \$2 billion, will probably be passed by Congress before it adjourns to attend the political conventions. The House appropriated \$2.2 billion for the giant construction program which calls for the building of Army, Navy and Air Force bases in foreign countries as well as at home. This amount is \$869 million less than the administration requested. (page 64)

Reclamation funds included in the Senate's version of the Interior Department appropriation bill total \$183.4 million for the construction and rehabilitation of authorized projects. The House earlier approved \$153.4 million for the same purpose, including a 12% limitation on funds spent for force account work. (page 64)

Ever Think of "Downtime" this Way?

When one of these are down
these operate at a loss too!



Pick Buda Diesels to keep your equipment moving

Downtime on a big haulage unit costs money—but when it causes other equipment to wait or operate at less than peak efficiency—downtime really cuts into profits!

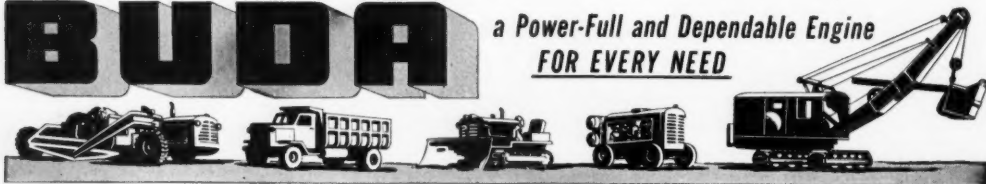
Buda Diesels' clean design...fewer parts, simple fuel system and heavy duty construction keeps them running longer at lower cost...with less maintenance and downtime. Buda Diesels are built to give you ideal working performance...extra power for occasional overloads...higher torque at proper speeds—and an average of 6000 hrs. between overhauls.

Ask your Buda Engine Distributor for information on Buda Diesels for any type of construction equipment. Write for Bulletin 1526 and specifications today.
The Buda Company, Harvey, Illinois.

8C-22

BUDA

a Power-Full and Dependable Engine
FOR EVERY NEED



A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for June stands at Index Number 382, according to the A.G.C. Index. The cost figure for June 1951 was 379. The 1913 average equals 100.

Number 290. The average a year ago stood at 295. The 1913 average, again, equals 100.

CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during May (Index Number 318, based on 1936-1938) is a decrease of 2 points from April and a decrease of 198 points from May 1951.

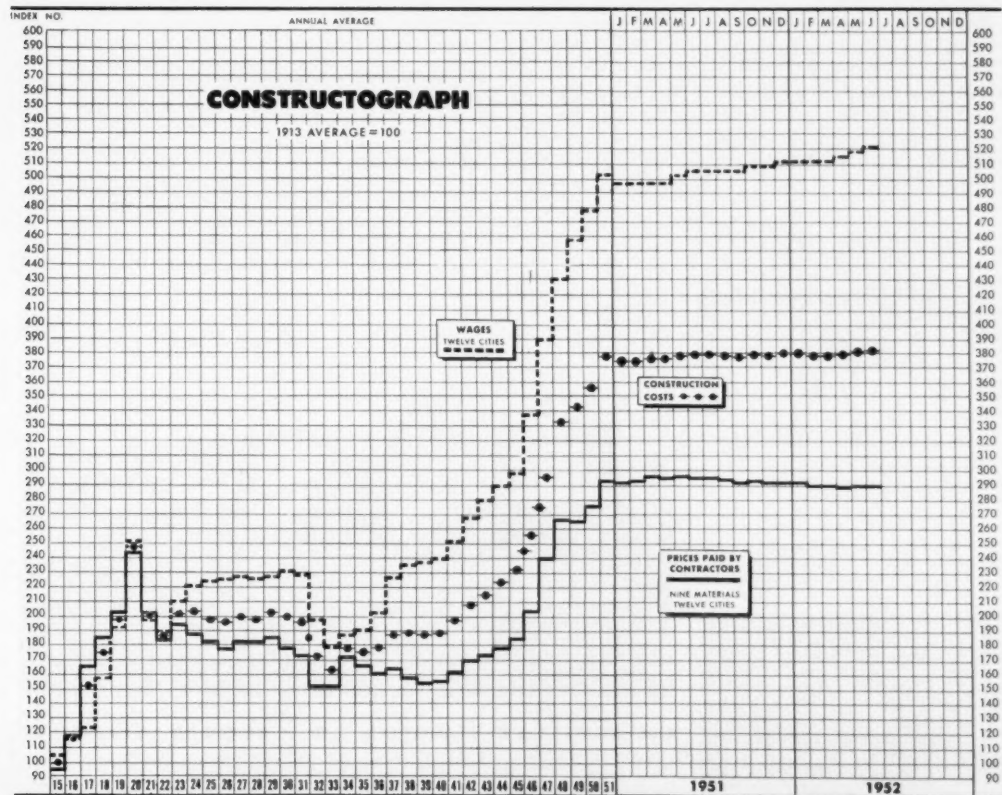
WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 521 for June. One year ago the average stood at 506. The average prices paid by contractors for basic construction materials for June stand at Index

REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 25 weeks of 1952 totaled 17,886,945 cars. For the same period in 1951, loadings amounted to 19,096,698 cars. This represents a decrease of 6%.

Wage, Material Price and Construction Cost Trends



The Billion-dollar Giant at Savannah River

In Aiken and Barnwell Counties, South Carolina, a construction job is in progress that is not only changing the face of the earth but may well change the course of history.

By the fall of this year an estimated 45,000 construction workers will be employed on this project—the mighty Savannah River Plant being built for the U. S. Atomic Energy Commission. Its purpose is to produce the fuels required for both A-bombs and H-bombs. The prime contractor is E. I. du Pont de Nemours & Co., Inc., and a number of the country's foremost construction companies are sub-contractors.

Total cost of the plant is expected to be at least \$1,200,000,000. Twenty million cubic yards of earth will be moved, and 1,250,000 cubic yards of concrete will be poured before it is finished. The plant area covers 315 square miles of sparsely settled land. It will be linked

together by 105 miles of modern roads, 60 miles of railroad grade and 85 miles of underground water pipe.

Up-to-date earthmoving methods and equipment are making rapid headway on this enormous undertaking. For example, one sub-contractor, R. B. Potashnick, of Cape Girardeau, Missouri, has moved over 800,000 yards of earth in less than three months. Accounting for a major part of his production are four "Caterpillar" DW21 Tractors with No. 21 Scrapers. These fast two-wheel rigs have been averaging 1,500 cubic yards apiece in a 9-hour day. Each unit is push-loaded by a "Caterpillar" D8 Tractor, and it carries up to 20 yards of pay load over a 2,500-foot haul.

Potashnick equipment has also completed grade for 19 miles of 4-lane highway on the project in less than 90 days. Such speed is typical of all construction work in the area.

One of R. B. Potashnick's "Cat" DW21 Tractor-Scraper units at work on the Savannah River Plant project. Push-loaded by a D8, it can make the cycle on a 2,500-foot haul in 2½ minutes, lugging 20 pay yards.



A "Cat" No. 12 Motor Grader, owned by R. B. Potashnick, levels grade for a railroad bed in the Savannah River project area.

Before water pipe is laid, a "Caterpillar" Diesel D4 Tractor with HT's Traxcavator finishes grading the ditch. Owner, U. S. Atomic Energy Commission.



This "Caterpillar" Diesel D8 Tractor, equipped with Trackson Pipe Layer, is working on sewer construction at the plant project.

Very few people except those directly involved are allowed inside the project area. But there is one common factor throughout the immense operation. Wherever people go there are big yellow machines at work. "Caterpillar" Diesel Tractors, both wheel and track-type, "Cat" Scrapers and Wagons, Motor Graders, Engines and Electric Sets—all are contributing their dependable production capacity to the biggest and perhaps the most important job in the history of the world.



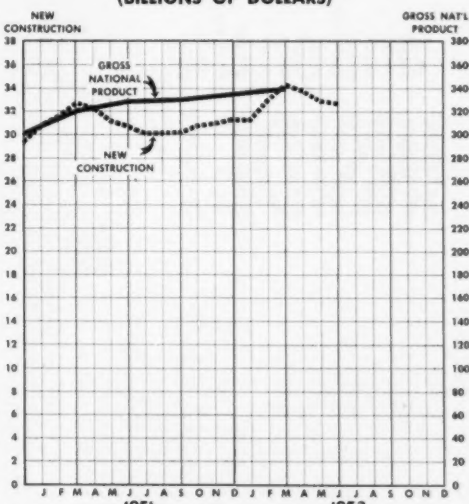
CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

● **TOTAL Construction compared with Gross National Product**
(BILLIONS OF DOLLARS)



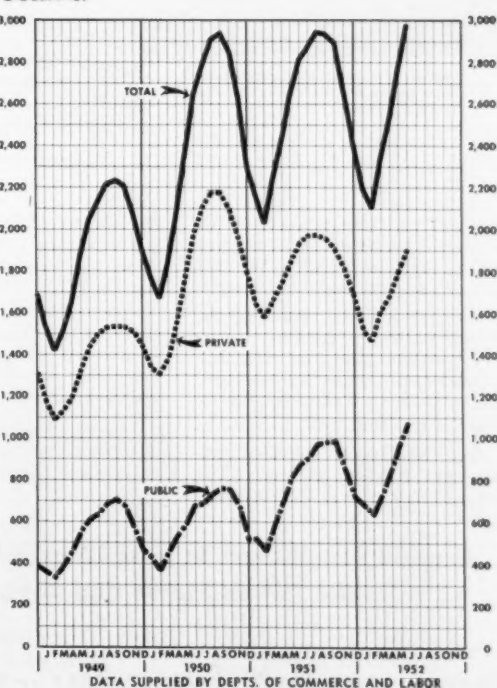
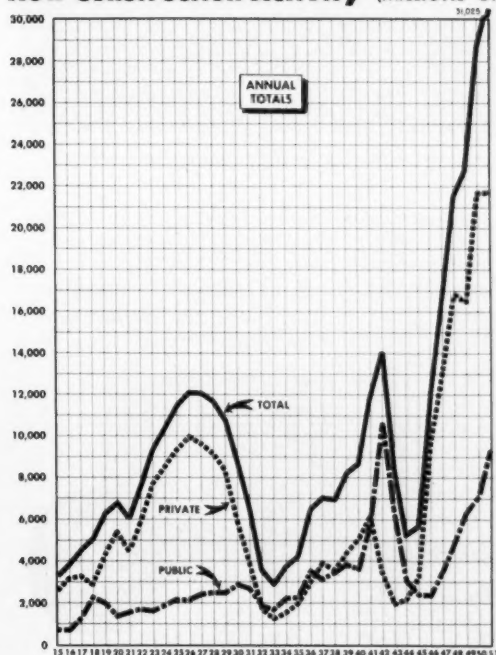
DATA SUPPLIED BY DEPT. OF COMMERCE

● **NEW Construction compared with Gross National Product***
(BILLIONS OF DOLLARS)



* Seasonally adjusted at an annual rate

New Construction Activity (MILLIONS OF DOLLARS)



DATA SUPPLIED BY DEPTS. OF COMMERCE AND LABOR

"CLOSE and on the INSIDE!"



Notice the clean, straight edge Gradall leaves along the sod. Clean cuts are a Gradall feature!



Gradall reaches for another cut sheer against the building wall and foundation.

EVERY CONTRACTOR and earth-moving machine operator gets a really tough one pitched at him once in a while—and here's an example.

This job required excavating for a new building, right up against two property lines that could not be disturbed. On one side was beautifully landscaped property. On the other, a building wall.

But the Gradall handled this accurate digging job easily. The long, clean strokes of its *arm-action*

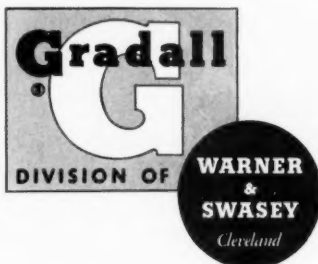
boom hewed right to the line of the adjoining lawn and its shrubbery. Along the wall, the operator really put Gradall's *controlled down pressure* to work—cutting straight down, close to the foundation, digging deep to make quick work of the excavation. No clean-up hand labor was necessary.

This is just one example of Gradall's clean, cost-cutting work. After completion of a job like this and a quick change of attachments, the

Gradall is ready for its next job. You'll find all kinds of work to keep your Gradall busy!

But see Gradall in action—contact your Gradall Distributor for a field demonstration.

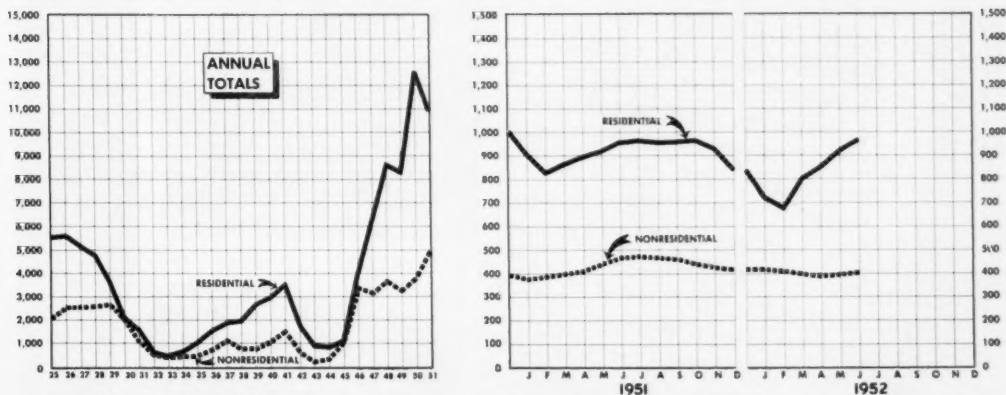
**Gradall Distributors in over 75 principal cities
in the United States and Canada**



GRADALL—THE *Multi-Purpose* EARTH—MOVING AND CONSTRUCTION MACHINE

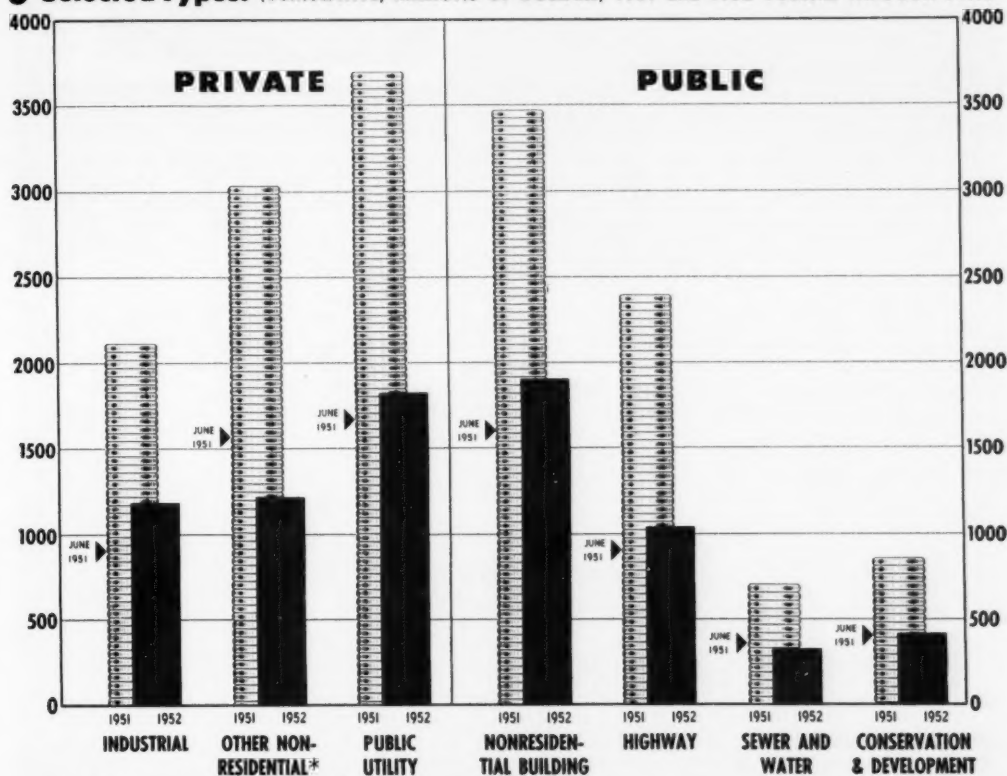
NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building* (MILLIONS OF DOLLARS)



* Residential excludes farm; Nonresidential includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building.

● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1951 and 1952 VOLUME THROUGH JUNE



* Includes commercial, institutional, and social and recreational building

GM DIESEL CASE HISTORY No. 516-2
USER: Mancini-Miller-Thompson Co.,

East Detroit, Michigan

INSTALLATION: GM 6-71 Diesel, powering
an Ingersoll-Rand Gyroflow 600
cfm compressor, which supplies
air to a McKiernan-Terry 9B3
double-action hammer.

PERFORMANCE: GM Diesel engine in
this compressor does the work of
two engines powering 500 cfm
compressors formerly needed
to drive hammer. Fuel costs
are halved. GM Diesel saves
15 minutes starting time.



THIS DIESEL TAKES THE PLACE OF TWO

and cuts costs in half

Here's another application where the compactness and high-speed power of General Motors 2-cycle Diesel engines save money for contractors. With power on every piston downstroke, instead of every second downstroke as in 4-cycle engines, a GM Diesel delivers plenty of smooth, steady power. It gets more work done in less time because it accelerates faster. It starts at the

push of a button and is easy to operate and maintain. Compactness of this power-packed engine enables it to fit in about the same space as gasoline engines of comparable power—providing savings of 40% to 70% on fuel and maintenance. See your GM Diesel distributor or write us for full information.

It pays to Standardize on

Write for booklet "A \$0,000,000 Run/Power Insurance Policy" that tells you why.



DETROIT DIESEL ENGINE DIVISION

GENERAL MOTORS • DETROIT 28, MICHIGAN

SINGLE ENGINES . . . Up to 275 H.P. MULTIPLE UNITS . . . Up to 800 H.P.

For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

THIS table indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from March 15, 1950 to May 15, 1952.

They are presented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

The Bureau of Labor Statistics surveys 10 key cities every month and 24 other large cities quarterly. Prices are obtained on food, fuel, apparel, house furnishings and miscellaneous goods and services. Rental information is obtained quarterly only for all cities. The computations are based on the indexes for the years 1935-39, which are taken as the average of 100 points.

	1950			1951			1952		
	MAR. 15	APR. 15	MAY 15	MAR. 15	APR. 15	MAY 15	MAR. 15	APR. 15	MAY 15
Average.....	167.0	167.3	168.6	184.5	184.6	185.4	188.0	188.7	189.0
Birmingham, Ala.....	168.4	167.7	169.0	190.6	189.9	190.1	193.6	193.3	194.2
Mobile, Ala.....	166.2	.....	.....	181.9	.....	.....	187.9	.....	.....
Los Angeles, Calif.....	165.9	166.9	166.7	185.6	185.6	186.3	190.9	191.5	191.3
San Francisco, Calif.....	172.3	.....	.....	188.7	.....	.....	193.1	.....	.....
Denver, Colo.....	.....	165.7	.....	.....	187.0	.....	.....	191.1	.....
Washington, D. C.....	.....	.....	165.2	.....	.....	180.0	.....	.....	184.9
Jacksonville, Fla.....	174.8	.....	.....	190.4	.....	.....	195.6	.....	.....
Atlanta, Ga.....	.....	.....	169.3	.....	.....	192.7	.....	.....	194.4
Savannah, Ga.....	.....	170.9	.....	.....	195.5	.....	.....	199.6	.....
Chicago, Ill.....	172.9	172.9	175.3	189.1	189.1	189.8	192.7	193.1	194.7
Indianapolis, Ind.....	.....	170.9	.....	.....	187.7	.....	.....	189.8	.....
New Orleans, La.....	.....	.....	171.5	.....	.....	188.5	.....	.....	190.1
Portland, Me.....	163.7	.....	.....	175.7	.....	.....	180.6	.....	.....
Baltimore, Md.....	170.1	.....	.....	188.6	.....	.....	193.0	.....	.....
Boston, Mass.....	162.0	162.3	163.3	175.8	175.5	176.1	179.1	178.9	179.9
Detroit, Mich.....	168.3	169.5	171.4	187.0	186.7	187.4	190.7	191.7	191.8
Minneapolis, Minn.....	167.1	.....	.....	183.2	.....	.....	188.0	.....	.....
Kansas City, Mo.....	.....	161.1	.....	.....	178.5	.....	.....	183.3	.....
St. Louis, Mo.....	.....	.....	.....	185.2	.....	.....	190.2	.....	.....
Manchester, N. H.....	167.4	167.1	.....	.....	182.9	.....	.....	187.0	.....
Buffalo, N. Y.....	.....	166.3	.....	.....	183.3	.....	.....	188.8	.....
New York, N. Y.....	164.0	164.5	165.4	180.4	180.6	181.4	182.4	183.5	183.2
Cincinnati, Ohio.....	167.9	167.3	169.7	184.4	184.6	184.8	187.5	188.4	189.4
Cleveland, Ohio.....	.....	.....	170.1	.....	.....	188.2	.....	.....	192.7
Portland, Ore.....	.....	174.8	.....	.....	194.1	.....	.....	198.6	.....
Philadelphia, Pa.....	166.0	166.0	167.1	185.6	185.9	186.4	187.8	188.2	188.3
Pittsburgh, Pa.....	169.5	170.1	172.0	186.0	186.7	187.8	190.3	190.9	191.1
Scranton, Pa.....	.....	.....	167.3	.....	.....	182.4	.....	.....	186.3
Memphis, Tenn.....	169.4	.....	.....	186.5	.....	.....	190.2	.....	.....
Houston, Tex.....	172.9	171.9	172.4	192.4	192.5	192.0	194.3	194.7	194.3
Norfolk, Va.....	.....	.....	170.9	.....	.....	188.3	.....	.....	192.9
Richmond, Va.....	.....	161.9	.....	.....	181.2	.....	.....	184.5	.....
Seattle, Wash.....	.....	.....	171.8	.....	.....	191.4	.....	.....	195.8
Milwaukee, Wis.....	.....	.....	170.9	.....	.....	190.9	.....	.....	198.1

On the beam for Sunbeam

...**CECO** ONE SOURCE SERVICE



CITED BY CECO FOR

EXCELLENCE

In Design and Construction

Olsen & Urbain, Architects • Campbell-Lowrie-Lautermilch Inc., Contractors

When a company begins a long range building program in critical times there's need for greater care in selecting materials and services. That was the situation facing the Sunbeam Corporation, their architects Olsen and Urbain and the contractors Campbell-Lowrie-Lautermilch, Inc.

Where could they be sure of steel products of engineered excellence? Where could they be sure of a follow thru detailing service? Could all this be found at ONE source to save time . . . increase efficiency? Such a challenge led to us here at Ceco for we had been delivering that kind of service day after day . . . year in year out.

Design called for three types of windows. Architectural Projected, Commercial Projected and

Horizontally Pivoted Steel Windows met the need. Precision Engineered, they assure the tightest weather seal ever . . . can't warp, rot or swell. Maintenance cost is lower too.

Because doors had to be fire resistive, Ceco Industrial Doors were specified. Rugged and serviceable, they're made to last the life of a building. On the structural side Ceco supplied reinforcing steel and prepared erection details. . . on windows and doors Ceco performed the erection work. Here from ONE source, the architect, engineer and contractor found a broad service that could be tailored to fit the job. Today more and more architects, engineers and contractors depend more and more on Ceco in solving building problems.



CECO STEEL PRODUCTS CORPORATION

General Offices: 5601 West 26th St., Chicago 50, Ill.
Offices, warehouses, and fabricating plants in principal cities.

In construction products **CECO ENGINEERING** *makes the big difference*

Sidelights for Contractors

By John C. Hayes, Counsel

Taxes

Excess Profits Tax.—The Bureau of Internal Revenue has determined industry base period yearly rates of return for excess profits tax purposes. For contract construction, the final rate of 11.6 is provided for general contractors and the final rate of 13.1 for special trade contractors. These rates are applicable only to new corporations and others qualifying for general relief based on the industry rate of return as an optional substitute credit.

Charitable Deductions.—The Senate has approved a bill to raise the present 15% limitation on charitable deductions by individuals to 20%, the percentage in each instance being computed on the taxpayer's adjusted gross income. Favorable action by the House and the President are necessary to enactment.

Withdrawal of Corporate Funds.—Under all the circumstances in a recent case, the Tax Court concluded that a corporation president's excessive withdrawals were loans to him rather than taxable dividends on his corporate stock. Although no notes were given to the corporation during the taxable years to cover these withdrawals, the president's salary, bonus, and traveling allowance were constantly being applied against the withdrawals, all the officers testified that the withdrawals were regarded as loans, the president was not the controlling stockholder, and the president's stock was subsequently assigned to the corporation as security for his debit balances.

State Use Tax.—The constitutionality of the Arkansas 2% use tax has been upheld by the state Supreme Court, in a ruling that the tax was properly levied on steel, sand, and gravel bought outside of Arkansas and brought into the state to build a road therein by a construction company.

Note Discount.—Ordinarily discount on a note represents interest charged in advance for the loan of funds and constitutes a business or non-business expense. However, the Tax

Court decided that a so-called "discount" represented a capital loss on a sale and was deductible only as such, where a note obtained by a payee in the sale of his incorporated business was transferred by him to a bank under a "without recourse" endorsement which relieved the endorser of any liability and required the bank to look solely to the makers and the collateral for payment.

Ordinary Income.—On liquidation of a corporation and formation of a partnership to carry out war contracts awarded to the corporation, the controlling stockholder reported as a capital gain his share of the excess of the assets distributed to him over his stock costs, including in the gain the estimated profit to be made on the war contracts. Nevertheless, the Tax Court denied the partnership depreciation or amortization on such a cost basis as claimed for the contracts, on the grounds that the contracts were not assignable and the partnership could prove no costs for them. The court felt that an effort was being made to avoid paying taxes at ordinary rates on income from war contracts by attempting to substitute a capital gain.

Replaced Construction.—The expense of replacing defective work on a business building in the course of final completion is a capital expenditure to be added to the cost of the building, the Tax Court decided, rather than being currently deductible as a loss.

Allocation of Income.—A circuit court has upheld the Commissioner of Internal Revenue in taxing to one taxpayer-corporation the income of four entities controlled by one individual and his son and served by the taxpayer-corporation as the connecting link. Each of the enterprises was conducted from the same office with the same employees, using the same equipment, and to a large extent supplying the same customers. Moreover, the Court refused to permit the taxpayer-corporation to use the equity invested capital of the other entities in computing its excess profits tax credit, despite the allocation to it of their income.

Public Contracts

Government's Delay.—The Supreme Court has refused to review a lower court decision that a government contractor, who was not liable to a subcontractor for damages suffered by the latter from the government's delay on a construction contract, cannot recover damages for such delay from the government on behalf of the subcontractor.

Renegotiation.—In a suit brought by a contractor against the government in the Court of Claims to recover payments due under contracts

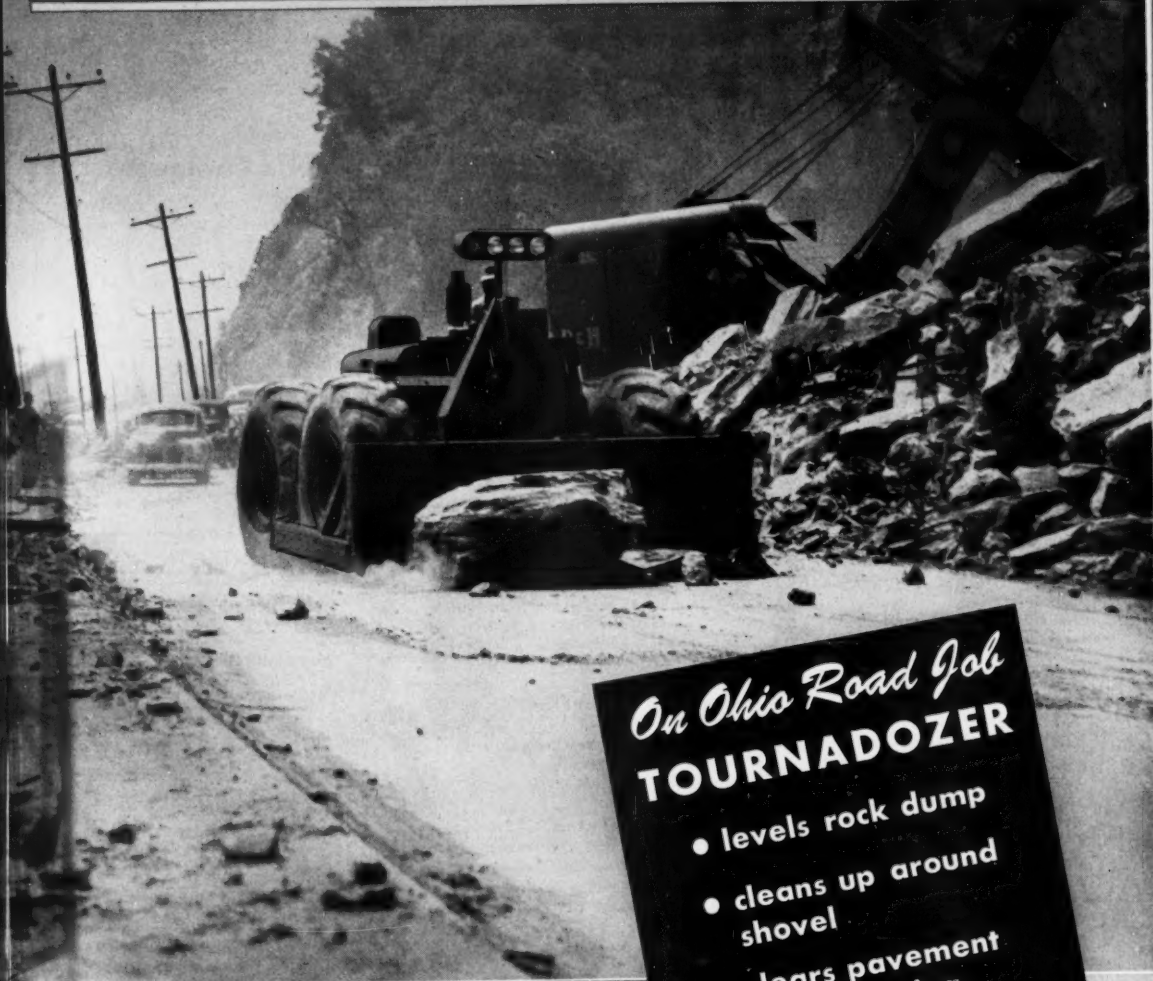
Mr. Hayes writes a comprehensive review of the operation of the Renegotiation Act of 1951, background of the law, and its effect on general contractors in an article beginning on page 50, which should answer many queries on the law.

not involved in renegotiation, the Court of Claims has ruled that the government may assert a counterclaim for excessive profits allegedly due it from renegotiation of the contractor, although a separate suit by the government is pending in a district court to recover the excessive profits.

Union Labor.—In a ruling by the Comptroller General, it is pointed out, while government contractors are required to comply fully with various applicable statutes dealing with labor standards, there is no statute requiring government contractors to employ union labor.

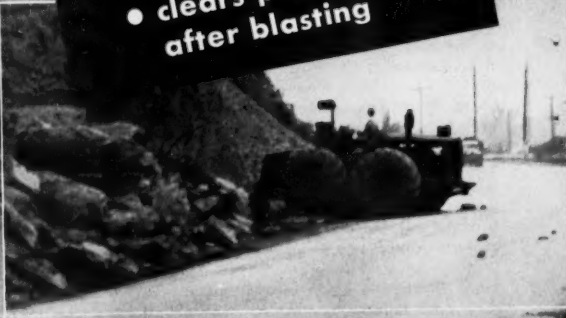
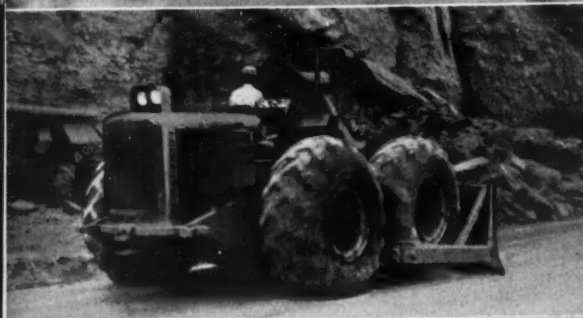
Misrepresentation.—A purchaser of government property who was misled by the government's representations, even though unintentionally, was permitted by the Court of Claims to recover damages, despite the fact that the sale was on an "as is, where is" basis and without warranty as to quantity or quality. The government drawings and an examination of the site reasonably indicated that a greater quantity of cable was being offered for sale than actually remained.

Rubber-tired dozer



On Ohio Road Job **TOURNADOZER**

- levels rock dump
- cleans up around shovel
- clears pavement after blasting



TWICE AS FAST ON 85% OF YOUR DOZING WORK

travels 30 miles daily

eliminates crawler on dump and front-end loader in cut

The Red Eagle Corporation of Columbus is cutting 150,000 cu. yds. of shale and sandstone from the face of a steep, rocky hill bordering U.S. Highway 52 east of Portsmouth, Ohio, to prevent landslides. They solved the problem of widely-scattered dozer assignments economically by bringing in a rubber-tired C Tournadozer.

"This rig eliminated 1 rubber-tired front-end loader for cleaning pavement, plus a track-type dozer on the dumps," says Supt. Paul Brauning. It piles loose shale after dynamiting, cleans spillage from around the 1½-yd. shovel, keeps pavement clear of fallen rock, and levels the dump for 3 bottom-dump haulers.

When it gets ahead on these major clean-up assignments, the versatile Tournadozer drives about half a mile from the pit to work on grading of a site for a new bulk plant for a major oil company. In handling all these tasks, Red Eagle's Tournadozer travels 30 miles daily over busy Highway 52 . . . works 55 hours per week . . . at time this report was secured, had worked 3000 hours and had been 95% mechanically efficient.

You, too, will be surprised at the extra jobs you can handle per day and the extra production you can get per hour with one of these highly-efficient, 19 m.p.h., 186 h.p. C Tournadozers. Call your LeTourneau Distributor for field data that will help you estimate the production and savings you can make.



To keep U. S. 52 open to traffic while widening work is in progress, Tournadozer moves rock from pavement. Rig's 21.00x25 low-pressure tires do no damage to pavement or shoulders. Blade is controlled electrically. "Entire electrical system has been 100% efficient," according to Supt. Paul Brauning.

Advertisement Material Page 65 For 44-D-23-41

R. G. LeTOURNEAU, INC.
Peoria, Illinois



When I inspect a **MACOMBER JOB**—

There is a structural **FEEL** to Macomber buildings only a workman who puts one together can describe to you.

There is a structural **UNITY** about the way Macomber Steel goes together that makes a fellow feel each night he has had a good day.

There is structural **EVIDENCE** that some special brand of engineering has supplied you with built-in shortcuts. You just get more building built per man hour.

If you were born with good construction in your blood, you will derive a kind of satisfaction with Macomber Products nothing else in this world can give you.

Write us.



STANDARDIZED STEEL BUILDING PRODUCTS

MACOMBER • INCORPORATED

CANTON, OHIO

V BAR JOISTS • LONGSPANS • BOWSTRING TRUSSES • STEEL DECK

National Welfare and Construction

During 1952 the total volume of construction activity in the United States probably will be in the neighborhood of \$40 billion. Once again this will establish a new record. Of this amount, approximately \$32 billion will be in new construction.

In addition, there will be other immeasurable benefits which the construction industry will perform for the development of the nation and for the national defense.

Whenever disasters, major or minor, occur to some of the nation's physical facilities, the construction industry already has or will repair the damage promptly and make these facilities useful again.

The construction needs for the national defense are being met promptly and on schedule. Failure in this work might otherwise be disastrous to our national life.

At the same time, the normal construction needs of the nation and its various communities, which are deemed necessary in view of the national emergency, are being carried out as promptly and economically as possible.

It is an ironic commentary that during the recent period when the greatest volume of construction in the history of the nation has been executed, there also has been the greatest number of business failures in the general contracting industry in the past 17 years.

This demonstrates, at least, that the competition has been intensely keen and that the public has been paying a minimum for its investment in construction.

While the industry has been satisfying the major construction needs in the continental United States, military construction units recruited from the industry have been executing outstanding engineering feats in Korea.

The defense of the nation is being strengthened by the speedy construction of military bases in various parts of the world by A.G.C. members.

Other A.G.C. members are aiding the economic development of other nations through their know-how.

Again this year, as it did last year, the total volume of construction activity may exceed agricultural income to make construction the greatest activity in the nation.

An activity so enormous and important to the nation and all of its communities needs to be carried out with a spirit of skill, integrity and responsibility—which has been the driving motivation of the A.G.C. for 34 years.

An Unwitting Tribute

The effectiveness of the A.G.C.'s case against S. 2907 (page 37), which would require general contractors to name subcontractors and their prices in bids on federal projects, is confirmed by the tenor of an editorial appearing in the June issue of *Qualified Contractor*, organ of the National Electrical Contractors Association, Inc., which stated in part:

"The main reason (for opposition) is that the A.G.C. has for some time enjoyed being the unchallenged spokesman and representative before government and the public of the construction industry. With mechanical specialty contracting and contractors developing faster and along more progressive lines and meriting a place in the sun, the A.G.C. sees its position slipping."

The Symbol of Responsibility

The names, addresses and chapter affiliations of all members of The Associated General Contractors of America are published in this issue of *THE CONSTRUCTOR*, the largest in the magazine's history.

These construction firms, located in all parts of the country and performing work throughout the free world, are the nation's leaders in their industry. Their membership in A.G.C. is assurance to the public of their skill, integrity and responsibility.

There has been a steady growth of membership in the association since its founding in 1918, with temporary exceptions. As the association grows in size it also grows in strength and importance.

In its *Code of Ethical Conduct* the association has stated that it "realizes that the vital bearing of the construction industry upon the well-being, comfort and safety of the entire public injects into the contractor's function an element of professional responsibility founded upon honor and trust.

"This responsibility requires, among other things, that we seek to improve construction methods, management and service, to eliminate uneconomical and improper practices, and to build responsibility throughout the industry.

"It surely cannot mean less than the establishment of construction service which will give to the investing public an assurance of skill and faithful performance."

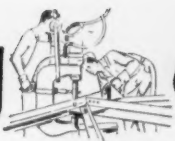
The programs of the national association and the chapters, which are formulated by the membership, have been developed and executed to carry out these objectives. Because the actions of the association, nationally and locally, have been founded on the principle that they should be in the public interest, there has been increasing confidence in and respect for the A.G.C. throughout the years, and the prestige of A.G.C. members has been constantly enhanced. The A.G.C. emblem has become recognized as the symbol of skill, integrity and responsibility in construction.

During peacetimes the A.G.C. works toward long-range objectives which are of benefit to its members, to the entire construction industry, and to the public. It does not engage in activities of a purely selfish interest.

During wartimes and periods of great national defense activity, the association is of invaluable assistance to the government by acting as the medium through which the government can have direct contact with the construction industry.

Practically every form of our civilized life requires some kind of construction for its growth and development. Because general contractors accept centralized responsibility for the construction of projects, a heavy burden falls upon them which they must discharge with honor and trust.

Huge fabricating capacity and erecting short cuts count on big jobs



count on big jobs



ALLIED STRUCTURAL STEEL COMPANIES
Engineers • Fabricators • Erectors
20 NORTH WACKER DRIVE, CHICAGO 6, ILLINOIS

**29 acres
under one roof**

International Harvester Company, Broadview Parts Depot—4500 tons of steel fabricated and erected.

Large jobs like this can be fabricated simultaneously in all three of our shops where identical equipment is available. That means speed which is pretty hard to duplicate.

On location, the skill of erecting crews in getting the structure up means more speed and time saved.

Wherever structural steel is involved in large, small, or in-between size structures, send your plans and specifications to us to be estimated.

★ Clinton Bridge Corporation ★ Gage Structural Steel Corporation ★ Midland Structural Steel Corporation

Fabricators and erectors of structural steel for highway and railroad bridges; Industrial, office, school, and government buildings; Airport structures; Harbor facilities.

» AGAIN THIS YEAR, the July issue of *THE CONSTRUCTOR* publishes the Directory of The Associated General Contractors of America.

In the directory, starting on page 225, are listed the names and addresses of all A.G.C. members, both alphabetically and by membership in branches or chapters.

Also published are the names and company affiliations of the officers, directors, members of the Advisory Board, A.G.C. committees, national joint cooperative committees, the national staff, and presidents and managers of the local associations affiliated with the national organization.

This July there are 6,136 memberships held in the A.G.C. There are 121 chapters and branches in all parts of the country and in Alaska. This is a gain of 262 members and eight chapters since last July. Except for temporary declines in the middle twenties and thirties there has been a steady growth of membership in the A.G.C. The membership has doubled since 1944 and tripled since 1934.

The Associated General Contractors of America was founded on Nov. 21, 1918, in Chicago with 97 general contractors as members. The following year the national headquarters were moved to Washington, D. C., where they have been maintained in the Munsey Building.

Construction Firms Listed by Type of Work

• A.G.C. Members Perform Over 80% of All Contract Volume

» ALL TYPES of construction projects essential to growth and development of the nation are executed by members of The Associated General Contractors of America.

In the roster by states, starting on page 284, members list the types of construction which they perform, such as building, highway and airport, or heavy and railroad construction. Some firms confine themselves to one general type of work. Others engage in a wider variety. Those engaging in the various types of construction are:

3,447 A.G.C. members report that (either exclusively or as part of their work) they perform building construction such as industrial plants, office buildings, apartments, hotels, large-scale residential projects, warehouses, public buildings, department stores and other commercial projects, as well as additions and repairs to buildings.

2,588 A.G.C. members (either ex-

Steady Growth of Association Signifies Vitality of the A.G.C.

• Now 6,136 Memberships in 121 Chapters

Birth of the A.G.C. was hastened by World War I, during which President Woodrow Wilson expressed the need for national organizations through which the government could have contact with the construction industry.

As the need for a national association which could represent the general contractor in war, reconversion and peacetime became more evident to men in the industry, a prominent general contractor, Daniel A. Garber, of New York, used his influence and prestige to bring about the meeting at which the A.G.C. was founded. In calling the meeting he wrote in part:

"The contractor is the prime factor in all material progress. Through him all necessary works are built, of public and private interest. He affords a livelihood for millions of men and their families.

"The contractor is now merely an individual with no influence other than his own personality and his commercial weight. Organized, he can serve his own legitimate interests, open the gates for greater prosperity, benefit the country in normal times, and serve

it royally in emergencies like the present."

Raised Contractors' Prestige

In the intervening years since it was founded, the A.G.C. has enhanced the prestige of general contractors and their profession by adherence to the objectives set forth in the by-laws, which include:

"To make membership in the association a reasonable assurance to the public of the skill, integrity and responsibility of A.G.C. members.

"To maintain the standards of the contracting business at the level necessitated by its quasi-professional character and to establish members of the association in the public mind as contractors who fulfill their obligations in good faith.

"To provide methods and means whereby members may avail themselves of the greater power of combined efforts through the association, acting as an authoritative body, in securing just and honorable dealings from the public whom they serve.

"To promote cordial and cooperative relationships between general contractors and other groups within the construction industry.

"To protect the legitimate market for the services of general contractors against encroachment by governmental or other agencies.

"To increase economy and efficiency in construction, thereby eliminating waste and reducing construction costs, through research and cooperation with other groups carrying on research in construction methods and materials.

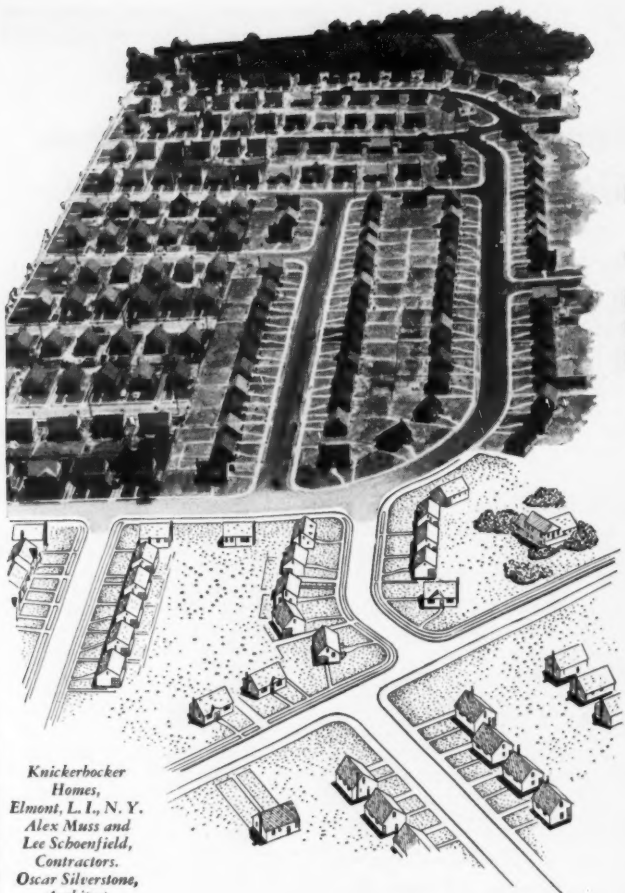
"To eliminate so far as possible the chances of injury or death occurring in construction work.

"To provide the methods and means for uniform action by members upon such principles as may be decided up, from time to time, as being for the good of the industry as a whole."

Midyear Meeting of Governing and Advisory Boards, The Greenbrier, White Sulphur Springs, W. Va., Sept. 8-10, 1952.

34th Annual Convention, Miami, Florida, March 23-28, 1953.

35th Annual Convention, Los Angeles, Calif., February 1954.



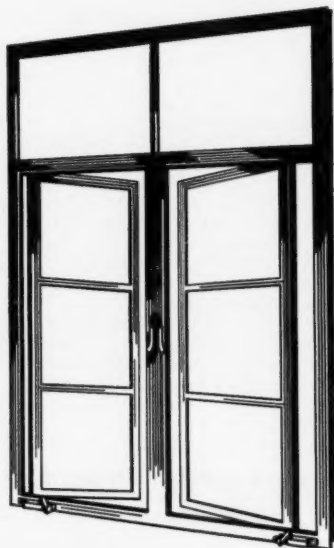
Knickerbocker
Homes,
Elmont, L. I., N. Y.
Alex Muss and
Lee Schoenfeld,
Contractors.
Oscar Silverstone,
Architect.

Architect Oscar Silverstone

says:



"Truscon Series 5 Casements
gave us the lowest possible
window unit cost in the
Knickerbocker Homes project."



Where lowest-cost-per-foot initial building costs are imperative . . . and where lowest maintenance cost-per-year in tenancy is essential . . . builders' figures have proved the unequalled efficiency of Truscon Residential Steel Casements.

Look for the exclusive features which Truscon furnishes (1) Extra weight—10 to 15% heavier; (2) Stainless steel operator guide—eliminates corrosion; (3) Superior workmanship—all welded corners of vents and frame are ground smooth, thus insuring tight weathering contacts.

See SWEET's for complete details on Truscon Residential Steel Casements, and write for free literature on the entire line of Truscon Steel Building Products.



TRUSCON

a name you can build on

TRUSCON® STEEL COMPANY

1100 ALBERT STREET • YOUNGSTOWN 1, OHIO

Subsidiary of Republic Steel Corporation

» INDUSTRIAL AMERICA of 1952 is bursting at the seams. Business leaders are learning today that, although long considered the industrial giant of the world, the United States has all along been only a pigmy compared to the colossus it is becoming now.

Of the nation's millions, probably only a handful of people—some industrialists and economists—fully realize how fast manufacturing plants are mushrooming, how rapidly the chemical, electric power, petroleum and other basic industries are flourishing. Evidence of growth is apparent almost everywhere, but only at the vortex of the flow of information does the rising genii form of a far greater industrial America take shape.

It is known now that many major industries are expanding to 130%, 150% and even 200% of their 1945 capacity.

Would Boost Capacity by 50%

"If the current plans for 1952 investment expenditures are realized," the Department of Commerce revealed recently, "outlays by manufacturers . . . will by the end of the year have added in the neighborhood of 50% of their (1945) capacity." The agency calls that record both impressive and unprecedented. In non-manufacturing fields, the story is the same. Private electrical utilities, for example, will have increased 1945 capacity by 75% at the end of this year.

Much of this vigorous activity has been sparked by the defense effort. The Defense Production Administration, concerned with increasing production in those industries vital to the national defense, reported last month that \$20 billion worth of new plants and equipment has been approved for quick amortization benefits.

The impact of industry's high goals for greater productivity—in a hurry—has been immediate upon the construction industry. Of \$43 billion (which will have been spent for plant expansion and equipment during the period July 1950 to July 1952), a substantial portion went for new construction. The proportion for construction differs within industries. DPA figures it at about 31%.

This year is expected to mark the zenith of the peak. The Securities and Exchange Commission reported last month, "Current spending plans (for plant and equipment) of \$6.4

America in Transformation as Industrial Expansion Hits Peak

- Two Top Building Years Meeting Defense Goals
- Privately Financed Boom Is Strain on Corporations

billion and \$6.1 billion, respectively, during the second and third quarters of this year are at record rates."

"For the first nine months of this year, outlays are expected to total \$18.1 billion—9% higher than for the corresponding period of 1951. If this rate of investment is achieved, it appears likely that the previous estimate of \$24.1 billion for the full year 1952 would be exceeded."

The Federal Reserve Board says, "There have been scattered reports of cancellations and curtailments of plant expansion and improvement programs of individual companies, but those publicly announced to date have not been large in total amount, and some companies have actually revised their expenditure programs upward since the beginning of the year. Though the seasonally adjusted rate of capital expenditure may decline somewhat during the latter part of the year—indicating that the peak of the current plant expansion program has been passed—over-all anticipations for 1952 seem likely to be realized."

After the Peak, Then What?

Industry has hitched its wagon to a star and the construction industry is riding the tailgate. The pertinent question now is: How long will the flight be?

Now that the craft is well off the ground, will her burst of speed flicker out and dump her unceremoniously? Will it go high and come down hard? Or level off and keep going?

Like all ventures, industrial expansion ambitions are tied to purse strings. The industrial boom depends upon the availability of money to continue building with. There are signs that the money is coming harder.

Robert P. Ulin, economist, writing for the *Commercial and Financial Chronicle* last January, spoke of the financial strain the expansion efforts have exerted on industry.

"In sharp contrast to World War II, this is preponderantly a privately financed expansion of industrial facilities," he said. As of July 1, 1952,

he estimated that Reconstruction Finance Corp. loans for the two previous years would total less than \$700 million, special RFC loans under DPA about \$150 million and private bank loans guaranteed by the Federal Reserve System slightly over \$1 billion—a total of less than \$2 billion.

Effects of Tax Amortization

"These are small amounts, when we are talking about business capacity expansion of \$25 billion a year, and in any event used principally in meeting working capital needs—not plant and equipment needs."

Far more important as a federal stimulant has been the tax amortization program. About \$10.6 billion worth of investment was approved for tax benefits during 1951. Because an average of only about 65.4% of the approved investment was covered by the benefits, actually only about \$7 billion worth of new plant and equipment was thus aided. The total industrial investment was far greater—\$23.3 billion.

About \$8 billion worth of new facilities have been approved this year for quick amortization. Only about 51.2% of this investment will be accorded the special tax consideration—or about \$4.1 billion thus far in a total investment which is expected to reach over \$24 billion.

According to a research study by the Machinery and Allied Products Institute, the federal government provided slightly over half of all emergency facilities during World War I.

"During the second world war," the authors state, "the government spent roughly three times as much as industry, a total of \$17 billion against \$6 billion."

Corporations Paying the Bill

The Federal Reserve Board notes that private business on its own initiative accounted for \$18 billion worth of industrial construction and equipment last year, besides the \$5 billion worth of such facilities put in place with the aid of certificates of necessity.

Put PUMPCRETE ON the Spot and LEAVE IT THERE!

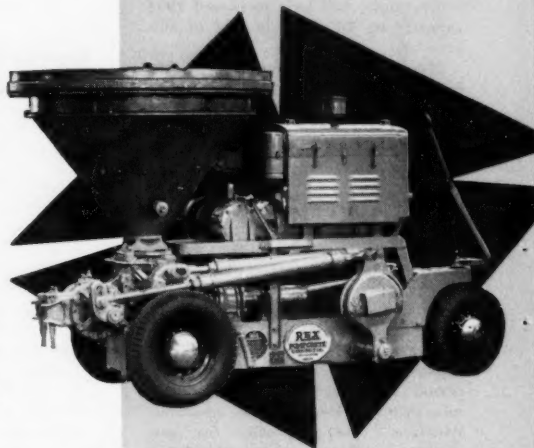


When your job calls for wide area pours, there's no need to pay the high cost of moving mixing and placing equipment from spot to spot... not when you use Rex® Pumpcrete®. With concrete by pipe line, you just spot the Pumpcrete in the one most advantageous location and extend the pipe to the various forms as needed. This makes Pumpcrete ideal for such jobs as sewage and water treatment plants, housing projects, wide area slab work, viaduct piers, etc. From the one location you can place concrete up to 1,000 feet horizontally and 120 feet vertically.

Just Look at the Savings

- No moving of heavy equipment from place to place
- Eliminates preparatory roads, trestling, towers, scaffolding, etc.
- No buggies or buggy runs
- No runaway storage problems
- No cleanup problems
- No interference with various crews

Investigate today the savings concrete by pipe line can mean for you. Get the details from your local Rex Distributor or write to Chain Belt Company, 4625 W. Greenfield Ave., Milwaukee 1, Wisconsin.



CHAIN BELT
REX
COMPANY

CONSTRUCTION MACHINERY...

It is on like analysis that Mr. Ulin declares, "This time corporations are paying for both munitions and plant expansion and the result is a tremendous financial strain."

Where the Money Came From

He listed these sources from which industry financed the huge building effort from July 1950 to July 1952:

Retained earnings.....	\$23-24 billion
Depreciation	\$16 billion
New security issues.....	\$11 billion
Mortgage loans.....	\$2 billion
Total.....	\$52-53 billion

Of the total, he estimates about \$9 billion was utilized as permanent additions to working capital—leaving \$43 billion to \$44 billion for plant expansion and equipment for that two-year period.

Those are the sources which traditionally yield expansion funds. New industrial construction is likely to depend upon availability of money from them. The opinion of Mr. Ulin is that they are drying up.

Profits Cut by Taxes

He points to high corporation taxes cutting into profits as an example. In the period, 1946 to 1951, industry used 66% of retained earnings for plant expansion. In 1950 to 1952, only 55% of retained earnings was available for such purposes.

"In other words," he declares, "the ability of business to finance capital expenditures out of retained profits has declined sharply."

The Federal Reserve Bulletin of May 1952 says, "For corporations alone, it is estimated that funds retained from operations (depreciation allowances plus profits after taxes and dividends) in 1951 were less than in 1950 by \$9 billion, or 15%."

"While depreciation accruals increased steadily last year, undistributed profits declined sharply from an all-time record of \$4.3 billion in the third quarter of 1950 to \$2.2 billion in the third quarter of 1951 and \$1.5 billion in the fourth quarter, when large year-end dividends customarily reduce the level of retained earnings. The declining level of retained earnings in 1951 reflected a combination of factors, the most important of which were the shift during the year from inventory profits to inventory losses and an increase in federal income and excess profits tax rates.

"Thus far in 1952, corporate retained earnings have probably been

well below the average for 1951, although moderately larger than in the last two quarters of that year."

Besides feeling the pinch of higher corporate taxes this year, many of the corporations which have been conducting large-scale projects find another problem facing them. A substantial volume of business funds were at their disposal last year through the regular deferral of payment of those high federal income and excess profit taxes. Payment of those accruals is due now.

Some Face Financing Problems

A writer for the Federal Reserve Bulletin wrote recently, "Those companies which used these funds to finance expansion of inventories, receivables, or plant and equipment may face special financing problems during the current year when tax liabilities on 1951 income must be paid."

It is probable that the large firms which took advantage of the deferral of payment privilege so they could expand this year will not have such funds on tap for continued construction next year.

About \$16 billion was available for the expansion drive during the period of July 1950 to July 1952 from depreciation allowances. This substantial sum results from the policy of setting comparatively high rates during this period of rapid obsolescence. The new additions to the physical plant will likely be depreciated on a similar basis and accruals from that source should steadily increase. How much this will offset decreasing profits is not known. In 1951, although depreciation accruals increased steadily, higher taxes and inventory losses cut down the retained earnings normally available for continuing replacement of permanent assets.

Yields From Security Issues

Another source of money for the current expansion of industrial facilities has been new security issues.

"So far as purpose of financing was concerned, over 70% of all corporate security issues for new capital in 1951 were for plant and equipment, as compared with about 60% in 1950 and 1948," the Federal Reserve Board reports.

"During the first three months of 1952, corporate security offerings for new capital reached an estimated first quarter record total of \$2 billion, of which nearly 75% was for plant and equipment financing."

U. S. News and World Report, in a

recent issue, said, "In the postwar years since 1945, the dollar value of corporate profits, after taxes, has broken all records. But so has the volume of money invested in new plant and equipment. This investment, in fact, exceeds the total value of profits and is almost twice as large as the amount of profits that corporations retained in their business. Corporations invested heavily of their own earnings and went into investment markets for added funds to improve their operations."

The fact that industry could not finance the expansion out of retained earnings or depreciation accruals is a matter of concern to some economists. The Federal Reserve Bulletin blames the decline in business liquidity (which this and other types of borrowing from outside sources indicates) for an accentuation of short-term financing problems in many enterprises."

Business Liquidity Tight

"The current position of corporations is definitely tighter than it was at the beginning of 1949, the previous postwar low point in business liquidity."

The over-all business liquidity picture during the past 18 months is one of "gradual impairment," the bulletin reports.

Speaking of the burden which the expansion effort has placed on industry, Economist Robert P. Ulin affirms, "The fact that such a remarkable expansion of business has been financially successful should not blind us to the fact that our sources of corporate funds are still far from satisfactory."

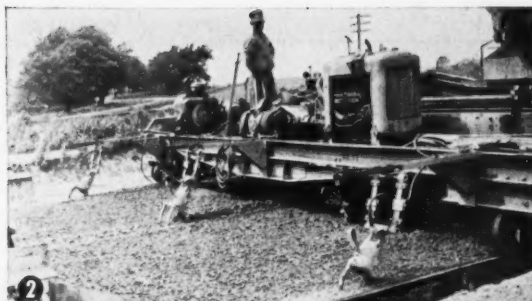
"With specific exceptions in the chemical and electrical utility industries, no new sources of outside funds have been opened up which would offer the prospect of an enlarged volume of business financing on a stable and continuing basis."

End of Boom in Sight

The meeting of mobilization goals this year and the slow exhaustion of internal funds are expected by many to spell the end of the industrial building boom at today's furious pace. High corporate taxes eating into profits (offsetting even the increasing depreciation accruals) are expected to set the brakes soon.

20% Decline Next Year

A business magazine survey fore-



JACKSON VIBRATORS THE BEST FOR ALL CONSTRUCTION



1 VIBRATORY PAVING TUBE which is quickly attached to any standard finisher, provides full width internal vibration through full depth of the slab. The harsher mixes are readily made plastic, saving cement and time, or with no cement reduction, greater compressive strength can be achieved. Quickly adjustable from 10' to 25'.

2 SIDE FORM VIBRATOR: Works equally well mounted ahead of finisher screed or in rear of spreader. Controlled by finisher operator. Saves better part of two men's labor. Will not penetrate through concrete to subgrade.

3 ELECTRIC VIBRATORY SCREED with Jackson Portable Power Plant: A great producer on MUNICIPAL PAVING, BRIDGE DECKS, HIGHWAY WIDENING and PATCHING. Strikes off to all crowns, undercuts at curb or sideform, works right up to and around manholes and other obstructions. Inexpensive.

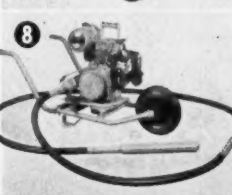
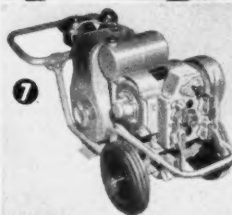
4 VIBRATORY COMPACTOR — ASPHALT: Delivers up to 4500 1 3/4 ton blows per minute. Propels itself and will compact 900 to 1200 sq. ft. per hour, close to theoretical density of mix used. Highly mobile. Operates on 3-phase 110 V. 60 Cycle AC from Jackson Power Plant on trailer having means of quickly picking up and lowering compactor.

5 VIBRATORY COMPACTOR — GRANULAR SOILS: Same as above except for corrugated base. Provides 95 to 100% of maximum density (A.A.S.H.O., T99-38, Cone, Vibratory Table).

6 FLEXIBLE-SHAFT, ELECTRIC VIBRATOR: 2 1/2 HP motor. Operates from light socket, 115 V., single phase AC or DC, with any length of shaft up to 28'. 8,000 to 10,000 VPM.

7 PORTABLE POWER PLANTS: Three models, 1.25, 2.5, 5 KVA capacities. Generate both single phase and 3-phase 110 V., 60 Cycle AC and are equipped with permanent magnet generators requiring no adjustment or maintenance. For operating all types of vibrators, contractors' tools and lights.

8 ENGINE-DRIVEN FLEXIBLE-SHAFT VIBRATOR: The finest in its class, for both thin and thick sections. Unusually powerful (6 HP).



Write — WIRE OR PHONE for COMPLETE DETAILS

JACKSON VIBRATORS, Inc.

**ELECTRIC TAMPER &
EQUIPMENT COMPANY
LUDINGTON, MICHIGAN**

sees a 20% decline in industrial expansion next year after 1952's record peak and a 33% decline from the 1952 peak in the next three years. Figuring from the peak of the boom, the picture in 1953 to 1955 is one of gathering shadows. Figuring from pre-Korean times, the picture is not so dark. Industry's plans reveal a continuing expansion volume still topping the pre-emergency years.

How closely businessmen can follow their normal plans of steady growth depends upon how fast they can catch their breath, financially, after the boom, and if retained profits permit continued investment in the future.

Beyond the Peak and Decline

Beyond the peak—and the predicted decline—a number of economists and businessmen foresee a long-range upward trend perpetuated by the needs of a growing nation. The increasing population and the desire for new products will provide a continuing market, they believe. Even normal replacement and development in such a huge physical plant provide some construction activity in the industrial field.

The Department of Commerce estimates that there is a net gain of one person every 13 seconds these days. Some authorities believe that 20 million people will be added to our total population between 1950 and 1960. Thomas S. Holden, president of the F. W. Dodge Corp., pointed out recently that this factor alone would necessitate a great deal of industrial expansion.

\$200-Billion Investment Need

"It has been estimated," he said, "that merely in order to maintain present living standards for our 1960 population and to carry an adequate defense establishment, \$200 billion must be invested in added production facilities of all kinds between 1950 and 1960. To improve our standards will take more. The total investment will naturally include much manufacturing, mining, agricultural and construction machinery, but a large percentage of it would go into industrial building." (our italics)

From the top of the industrial building peak of 1952, the economists predict a downward trend in 1953. The size of the net—consumer needs—which some economists confidently predict will be there to block a plunge, remains to be seen.

Strike Hurts Chance of \$32 Billion Volume

• NPA Relaxes Aluminum, Copper; Cancels Steel Easing

» DEFENSE MOBILIZATION officials this month were attempting to plan when relaxations of construction controls could go in effect, faced with mounting losses of steel production from the lengthening strike.

National Production Authority Administrator H. H. Fowler announced last month that limitations on self-authorization of orders for steel con-

trolled materials will remain unchanged because of the situation created by the steel work stoppage. The relaxations that he had announced several weeks ago would go in effect the first of July and in the fourth quarter had been predicated on a continued high level of steel supplies.

Currently it is presumed that those

Estimated 1951-1952 New Construction Volume¹

(CONTINENTAL UNITED STATES)

	1951 ² (Millions of dollars)	1952	% Change from '51
Total New Construction	31,025	32,175	+ 4
Private, total	21,684	21,225	- 2
Residential (excluding farm).....	10,973	10,850	- 1
New dwelling units.....	9,849	9,700	- 2
Additions and alterations.....	934	975	+ 4
Nonhousekeeping.....	190	175	- 8
Nonresidential building.....	5,152	4,680	- 9
Industrial.....	2,117	2,200	+ 4
Warehouses, office and loft bldgs....	544	425	-22
Stores, restaurants and garages.....	827	575	-30
Other nonresidential building.....	1,664	1,480	-11
Religious.....	452	340	-25
Educational.....	345	360	+ 4
Hospital and institutional.....	419	400	- 5
Social and recreational.....	164	115	-30
Miscellaneous.....	284	265	- 7
Farm construction.....	1,800	1,700	- 6
Public utility.....	3,695	3,925	+ 6
Railroad.....	399	400	(³)
Telephone and telegraph.....	487	550	+13
Other public utility.....	2,809	2,975	+ 6
All other private.....	64	70	+ 9
Public, total	9,341	10,950	+17
Residential.....	595	725	+22
Nonresidential building.....	3,471	4,000	+15
Industrial.....	958	1,650	+72
Educational.....	1,531	1,550	+ 1
Hospital and institutional.....	498	450	-10
Other nonresidential building.....	484	350	-28
Military and naval.....	1,019	1,900	+86
Highway.....	2,400	2,500	+ 4
Sewer and water.....	706	700	- 1
Miscellaneous public service enterprises	213	200	- 6
Conservation and development.....	860	850	- 1
All other public.....	77	75	- 3

¹ Joint estimates of the Department of Commerce and the Department of Labor.

² Revised.

³ Increase less than 0.5 percent.

purchasers of steel who have been lucky enough to have their allotment "tickets" accepted by the mills will be served first, but that all others will be useless for delivery in July. Once the mills resume operations, they must catch up on June orders before others. If the strike does not last an unusually long time, presumably the fourth quarter allotments will not suffer appreciably.

Copper, Aluminum Eased

Amendments in Controlled Materials Plan regulations which became effective on the 1st of this month, grant substantial increases in the self-certification of copper and aluminum for most types of construction.

Changes in CMP Reg. 6 will permit the self-certification for industrial construction of 2,000 pounds of alu-

minum per project per quarter, thus doubling the previous quota.

The amendment will also permit the self-certification of 750 pounds of copper instead of the previous 200, and 1,000 pounds of aluminum per project per quarter for commercial construction projects, schools, hospitals, public buildings and others. There is no change for public roads and recreational construction.

For the first time self-certification of 250 pounds of aluminum is permitted for a residential unit. The amendment to order M-100 also permits substantial increases in the self-authorization of copper for dwelling units. M-100 regulates the use of controlled materials in one- to four-family structures. No self-authorization is permitted for larger residential projects.

Henry Fowler, National Production Authority administrator, explained that it was possible to increase the share of aluminum for small users because the estimated use as computed from industry schedules submitted in March had been somewhat extravagant.

Copper Easing Explained

Copper has been considerably eased, Mr. Fowler stated, because of the recent decline in world copper prices which has made possible the revision of the government's price policy allowing U. S. producers to pass on to consumers 80% of the differential between the foreign and domestic price of copper. It is expected that this development will induce domestic producers to import more copper.

NPA acted last month to increase allotments of copper and copper base alloys totalling an estimated 16,000 tons to bring U. S. copper purchases up to the limit allowed by the International Materials Conference.

As a result a considerable increase in the allotments for defense supporting and essential programs which have heretofore received relatively small allotments is expected.

Also, consumer durables manufacturers will get an increase from their present 35% to 50% of their base period use of the controlled material.

Mr. Fowler stated that the U. S. had not been receiving its full quantity of copper under the IMC because the higher prices for foreign copper would cause a considerable degree of disruption in this country's economic stabilization program.

WELLMAN Williams Type PERFORATED DRAGLINE BUCKET speeds the wet jobs

● You get big loads fast with this Wellman Perforated Dragline Bucket because excess water goes out while gravel stays in on jobs such as illustrated.

Built of special alloy steel—all welded for strength plus light weight. You can work faster with less maintenance with Wellman dragline buckets.

Want Facts?

Write for free
descriptive bulletins.

Dragline, Clamshell, Custom-Built
Buckets, Stone and Wood Grabs.



THE WELLMAN ENGINEERING COMPANY

7000 Central Avenue
Cleveland 4, Ohio

Men who depend
on power...know
they can depend
on **CUMMINS**[®]



Every **CUMMINS DIESEL** is built not once but twice



Construction men in the field have learned to count on Cummins Diesels for dependable power day in, day out.

What's behind this consistent reliability? One good reason is the fact that every Cummins Diesel is actually built *twice*. After initial assembly, and run-in testing, every engine is disassembled, inspected; then reassembled and tested again.

This extra care—together with Cummins' economy-proved fuel system and efficient parts and service organization—makes lightweight, high-speed (50-550 h.p.) Cummins Diesels a wise first choice for men who depend on power.

Whatever your power needs . . . whether it's for earthmoving, portable power units or generator sets . . . or any other important jobs . . . your Cummins dealer is the man to see.

CUMMINS ENGINE COMPANY, INC., Columbus, Indiana

Export: Cummins Diesel Export Corporation
Columbus, Indiana, U.S.A. • Cable: CUMDIEX
(C-82)



TRADEMARK REG. U. S. PAT. OFF.

Leaders in lightweight, high-speed diesel power!

Regulation X Extended with Some Changes

• Housing Credit Tied to Production after Board Relaxes Rules

» REGULATION X, the real estate credit curb, was extended 10 months to April 30, 1953, when President Truman signed into law the compromise controls bill passed late last month by Congress.

The House earlier had voted to

abolish the regulation along with most other controls but the Senate opposed such action. From a joint committee a compromise bill was drafted that was accepted by both houses and sent to the President (page 63).

The legislators stated in the bill that

if housing starts, surveyed over a three-month period, should fall below a 1.2 million annual rate, the government could not require more than 5% down payment on the new homes. However, the law provided for the President to enforce stiffer real estate curbs as soon as surveys show construction starts begin to exceed the critical 1.2 million mark. There is no present change in the regulation.

Nonresidential Easing Studied

Earlier last month, the Federal Reserve Board, which recently relaxed Regulation X, announced that it is considering the easing of credit terms affecting nonresidential property.

Such a move, when it does come, would make it easier for business concerns to get building loans and step up new construction, as the revised Regulation X now makes financing slightly easier for home buyers.

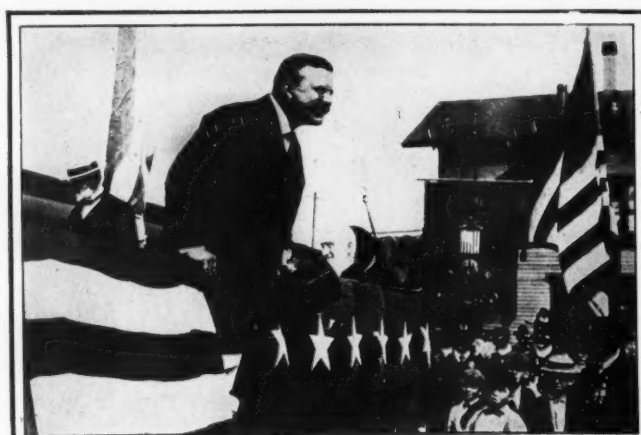
Also, the steel strike has directly affected nonresidential construction. Though the embargo on shipments of warehouse steel does not apply to steel used in new-plant construction or expansion, the resulting shortage of steel makes it nearly impossible for business firms to get necessary amounts.

Apartment Credit "No Obstacle"

Regarding Regulation X, a board official recently said that the new liberalized down payments for apartments are "as low as the present FHA statute will allow." Regulation X, as applied to this type of construction, is "not much of an obstacle any more," he added.

The new credit terms for these multi-unit residences follow the same general pattern as those for one-to-four-family residences. That is, for family units valued at \$7,000 each or under, the maximum down payment is 10%. For those between \$7,000 and \$10,000, the down payment is \$700 plus 45% of excess of value per family unit over \$7,000.

For those between \$10,000 and \$15,000, the down payment is \$2,050 plus 46% of the value over \$10,000. For units between \$15,000 and \$21,000, the down payment is \$4,350 plus 50% of the amount over \$15,000. For units in the \$21,000 to \$25,000 range, the down payment is \$7,000 plus 75% of the value above \$21,000. And for all over \$25,000 per family unit, the down payment is a flat 40% of the value.



The Bettmann Archive

THEODORE ROOSEVELT RESPONSIBLE for FORMATION of SURETY ASSOCIATION

Some forty years after surety companies started in America competition had reached a point where some companies were executing bonds in an amount greater than their capital and surplus. Fearful that extremely large losses might occur, Leslie M. Shaw, Secretary of the Treasury under President Theodore Roosevelt called company representatives together for a conference. Theodore Roosevelt was in the midst of his historic trust-busting campaign but took time out to consider Shaw's recommendations—approved them and agreed that a strong voluntary association of surety companies would be best suited to correct internal conditions within the business and thereby laid down the first major principles of both legal and domestic regulation of corporate suretyship.

(Fourth in a series of advertisements tracing the history of the Fidelity and Surety Industry)

**Phoenix-
London**
GROUP

55 FIFTH AVENUE · NEW YORK

PHOENIX ASSURANCE CO., Ltd.
COLUMBIA INSURANCE COMPANY
UNITED FIREMEN'S INSURANCE CO.
THE UNION MARINE & GENERAL INSURANCE CO., Ltd.
LONDON GUARANTEE & ACCIDENT CO., Ltd.
PHOENIX INDEMNITY COMPANY



JUST A DECIMAL POINT, BUT THE MOST EXPENSIVE ITEM IN YOUR BUSINESS •

Mr. Contractor

CHECKING AND DOUBLE CHECKING YOUR QUANTITIES
IS OUR BUSINESS



H. A. SLOANE ASSOCIATES

America's oldest, largest and most responsible survey bureau offers you the services of an organization of specialists in every branch of construction including all mechanical trades—each having had many years of field and office practice

29 years of serving the Building Industry attests
to the accuracy and dependability of our service

Mr. Architect- Engineer- \$

Cost estimates for Architects-Engineers are based upon local conditions. Within the past 3 years we have prepared cost estimates of Public Works valued at over \$1,000,000,000 which were awarded within 1% of our values.

Our daily volume of \$2,000,000 is
unequalled in size or scope by any
office in the country.

YOU CAN DEPEND ON SLOANE ESTIMATES

Our Charges are on a Predetermined Basis

H. A. SLOANE ASSOCIATES

CONSTRUCTION CONSULTANTS

415 LEXINGTON AVENUE, NEW YORK 17, N. Y.

ESTIMATES • QUANTITIES • APPRAISALS • PLANT DESIGN • CAISSON DESIGN

Approved by Associated General Contractors of America



*Which will it be
on your next bid?*

Quite often, a job goes for the difference in a bid made possible by low, *preferred* bond rates. Can you meet or beat competition on this vital point?

To make sure, talk to an Agent of the Indemnity Insurance Company of North America. Ask him to establish your credit line with Indemnity, the largest independent company, which offers the lowest bond rates to contractors of *skill, integrity and responsibility*.

Once you are on Indemnity's qualified credit line, you can be sure that no one will be able to underbid you on this

item. Not only will you save money at Indemnity's low rates, but you will also be assured of getting bonds on future jobs without delay.

See your Indemnity Agent for all the details. If you don't know him, write us. We'll be happy to introduce you.

Ask your Agent for a copy of Indemnity's Contractors' Bid Book ... use it at your next letting.



Look to the future ... establish your credit line now!

**INDEMNITY INSURANCE COMPANY OF
NORTH AMERICA**

1600 Arch Street, Philadelphia 1, Pa.

» THE PAST five years have been a period of unprecedented activity in the building and construction industry. The current employment level of 2.5 million workers per year is more than double the 1939 rate. The dollar volume of new construction is running at the rate of more than \$30 billions a year. Work in process and orders placed would appear to assure high levels for the season ahead.

How long will this pace last? There is no reliable crystal ball available, nor is any reported under construction.



Mr. Dunlop

John T. Dunlop, author of this article, is an educator, economist and labor relations consultant of national note.

His educational background includes scholastic achievement at Harvard, Stanford and Cambridge, as well as study at London School of Economics. He has taught at Harvard's Littauer School of Public Administration and acted as an arbitrator in industrial disputes.

In government and industrial circles he has won recognition as consultant to the Council of Economic Advisors, to the National Labor Relations Board and to other government-industry groups. Previous contact with the construction industry has been through the Wage Adjustment Board on which he acted as the public member. He is a member of the Wage Stabilization Board.

Mr. Dunlop is presently chairman of the National Joint Board for Settlement of Jurisdictional Disputes, a post in which his influence is particularly important to both labor and management groups.

What Contractors Can Do To Avoid Jurisdictional Disputes

By John T. Dunlop

Chairman, National Joint Board for Settlement of Jurisdictional Disputes

But it is prudent for the construction industry now to arrange its house, or at the very least to think about changes, for times ahead may be less flush. One of the various areas that needs attention is that of work assignments and jurisdictional disputes.

The National Joint Board for the Settlement of Jurisdictional Disputes was jointly established by the contractors and the unions as a more practical first alternative to the remedies provided in the Taft-Hartley law for work stoppages arising from jurisdictional disputes. The Joint Board has normally been resorted to first and has been effective in restoring work promptly in the vast majority of cases. The more drastic procedures of the law are thus in reserve, available should the Joint Board fail to fulfill its function, or more accurately, should the parties fail to fulfill their obligations under the plan.

During the past four years the Joint Board has handled about 1,500 work stoppages. The Joint Board has met every week or ten days, holding more than 150 meetings since May 1948. At these meetings the Joint Board has averaged between 10 and 20 job decisions on particular disputes at each session. The procedural rules adopted by the Joint Board and amended on February 29, 1952, have established guides according to which contractors are to assign work and unions are to file complaints over these assignments. The preponderance of jurisdictional disputes that arise in the industry on any one day are adjusted locally, as they must be, under these procedural rules.

But the jurisdictional machinery and its operations need to be improved. There is much that the international unions alone can do. The individual contractors and their associations also have a contribution to make to improved settlement of these disputes without work stoppage. Four points stand out:

(1) Contractors need to exercise more care, more thought, and more foresight in the making of work assignments. Too many contractors have been learning the hard way that the

planning of work assignments is as vital a part of managing a project as the flow of materials or the hiring of skilled workers or supervision or the use of modern equipment and tools. An increasing number of contractors on larger projects are finding it worth while to make written assignments of work.

(2) Contractors should clearly think through the problem of which persons in management have the authority and responsibility to make work assignments. On some projects this responsibility has been centralized in one person, in other cases the responsibility is more diffused. The problem is particularly complicated when there are a number of contractors on the same project. But there should be no doubt on a job, at least for each contractor, who has this responsibility. A jurisdictional work stoppage should not be necessary to settle this matter of management organization.

(3) Contractors and their representatives should assign work strictly according to the procedural rules of the Joint Board. Work assignments should not be influenced by personal attachments or even by provisions of collective bargaining agreements which may seek to assign jurisdiction or to write in jurisdiction. These procedural rules bearing on the contractor's responsibility to make work assignments bear repetition here:

1. The contractor shall make a specific assignment of the disputed work. It is a violation of the plan for a contractor to hold up disputed work or shut down a project on account of a jurisdictional dispute.

2. The assignment to be made by the contractor shall be according to the following bases:

(a) Where a decision of record applies to the disputed work, or where an agreement of record between the disputing trades applies to the disputed work, the contractor shall assign the work in accordance with such agreement or decision of record. Agreements and decisions of record are compiled in the "Green Book" published by the Building and Construction Trades Department,

A.F. of L., ("Agreements and Decisions Rendered Affecting the Building Industry"). Where a national agreement between the disputing trades applies that has been filed with the Joint Board and attested by the Chairman, even though not an agreement of record, the contractor shall assign the work in accordance with such agreement.

(b) Where no decision or agreement under (a) applies, the contractor shall assign the disputed work in accordance with the established practice in the local area. The local area for the purpose of determining the established practice shall be defined ordinarily to mean the geographical area of the local building and construction trades council in which the project is located.

(c) If a dispute has arisen prior to the specific assignment of work where no decision or agreement applies, or where there is no predominant practice in the local area, the contractor shall nonetheless make a specific assignment according to his best judgment after consulting the representatives of the contesting trades and considering any arguments or facts the trades may wish to present regarding the applicable decisions or agreements of record or practice in the locality. The contractor should also consult any local association of contractors in the locality regarding the established practice.

(4) It may be helpful in negotiating collective bargaining agreements to include a section on jurisdictional disputes and to provide that all parties are bound to observe the procedural rules and decisions of the established plan for the settlement of jurisdictional disputes in the industry.

Greater attention by contractors to the assignment of work and the development of careful administrative practices on the part of management will make a genuine contribution to the reduction of jurisdictional dispute work stoppages.

WSB Failure Deplored

The breakdown of the Wage Stabilization Board was hit last month by James D. Marshall, assistant managing director, A.G.C., who told a State University of Iowa audience, "Bargaining as we have known it, has been destroyed by stabilization efforts. It is impossible to succeed longer with the Wage Stabilization Board at a time when no group seems convinced that a critical emergency exists to require such restraints."



James D. Marshall



Richard J. Mitchell



J. William Wade



Everett W. Dunn

They Represent Contractors on Joint Board and CISC

Long hours of hard work have been spent by the men who represent general contractors on the Construction Industry Stabilization Commission and the National Joint Board for the Settlement of Jurisdictional Disputes. They are: James D. Marshall, Assistant Managing Director of The Associated General Contractors of America, who is a member of both.

Everett W. Dunn, consulting engineer of Hartley, Iowa, a member of CISC who was also a member of the Wage Adjustment Board of World War II.

J. William Wade, vice president, John Griffiths & Sons Construction Co., Chicago, a member of CISC.

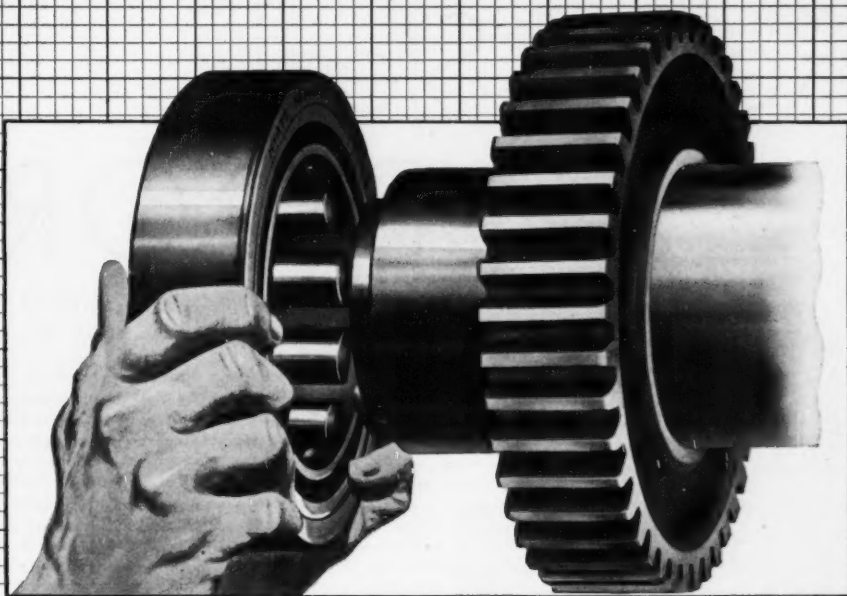
Richard J. Mitchell, vice president,

The Trimble Co., Pittsburgh, a member of the jurisdictional board.

For the men not living in Washington, the work means travel to Washington each week.

CISC administers the wage stabilization program in the construction industry in accord with policies of the Wage Stabilization Board.

The National Joint Board for the Settlement of Jurisdictional Disputes is maintained by an agreement between the Building and Construction Trades Department of the American Federation of Labor, the national associations of specialty and subcontractors, and The Associated General Contractors of America.



When Hyatts Go In —Bearing Wear and Care Go Out

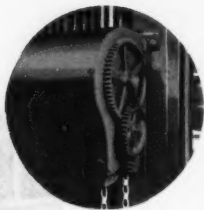
Hyatt Hy-Load Roller Bearings provide maximum radial load-carrying capacity in a given space. Their unusual ability to withstand shock loads or abnormal temperatures, together with the provision for axial shaft expansion without cocking or binding, makes them the natural choice of mechanical equipment builders.

Rough, all-weather usage of tractors, trucks, power-shovels, graders, ditch-diggers, road-rollers, mixers, pumps, compressors, scrapers and other construction equipment calls for the best in bearings. Builders and users alike know that when Hyatts go in—bearing wear and care go out.

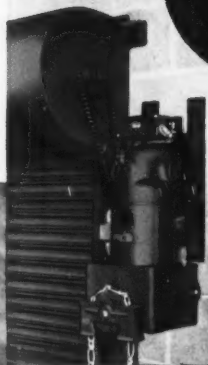
The confidence in Hyatt bearings that has developed among construction machinery users is a result of their own year-in year-out experience with machines and equipment that have their complement of these dependable bearings. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS

Rolling Steel DOORS



MAHON
CHAIN-GEAR
OPERATOR



MAHON STANDARD
POWER OPERATOR 920-P

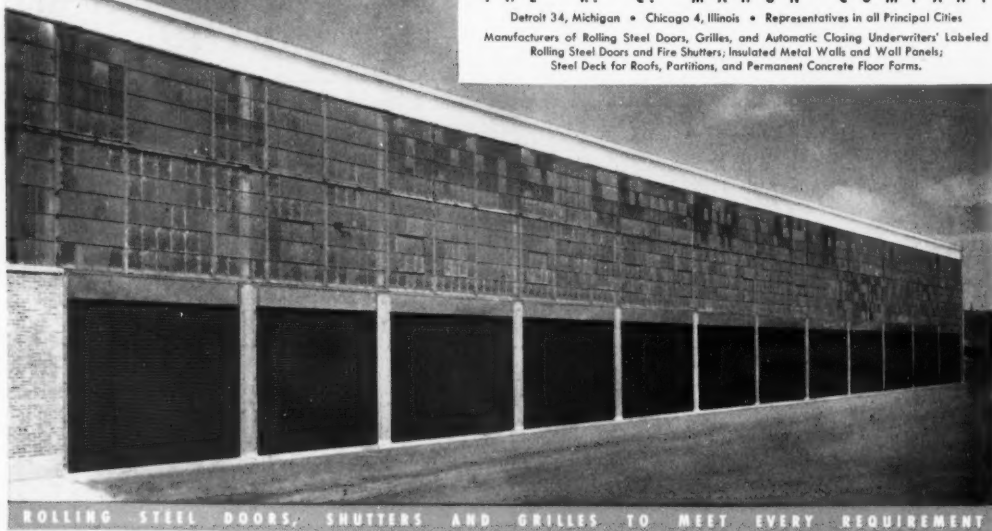
Manually, Mechanically, or Power Operated

Here again is illustrated a building in which only Rolling Steel Doors could meet the operating requirements. It is a foundry building with high clearance below trusses and continuous sash above door lintels to provide good natural light. Rolling Steel Doors were chosen because their vertical roll-up action occupies no usable space inside or outside the door opening, and does not create an obstruction above the lintel level. No other type of door offers these inherent advantages of space economy and compactness in operation. There are other advantages too . . . Rolling Steel Doors are permanent—their all-metal construction provides maximum security against intrusion and fire, and assures you a lifetime of continuous trouble-free service. Like most other things, there is a vast difference in the quality of the various rolling steel doors on the market today—a careful check of specifications will reveal this. For instance, the galvanized steel material for the interlocking slats of Mahon Rolling Steel Doors is chemically cleaned, phosphated and chromated to provide paint bond, and the protective enamel coating is baked on at 350° F. prior to roll-forming. This is just one of the extra-value features of Mahon Rolling Steel Doors—you will find others. See Sweet's Files for complete information including Specifications, or write for Catalog No. G-52.

THE R. C. MAHON COMPANY

Detroit 34, Michigan • Chicago 4, Illinois • Representatives in all Principal Cities

Manufacturers of Rolling Steel Doors, Grilles, and Automatic Closing Underwriters' Labeled Rolling Steel Doors and Fire Shutters; Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms.



ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Twelve of fifteen Mahon Power Operated Rolling Steel Doors installed in a new foundry building built by Spence Bros., General Contractors, Saginaw, Michigan.

MAHON

» A REVISED S. 2907, the bill requiring general contractors to name specialty contractors and their prices in federal bids was hastily reported out without recommendation by the Senate Judiciary Committee as June ended, but failed to pass when it came up before the Senate on the calendar as Congress rushed through the closing hours of this session.

Several Senators had recorded their objections to the bill, and some surprise was expressed that it was reported out after the mass of testimony offered in opposition by general contractors and government agencies in the hearings ended on June 3.

Amendments Made in Bill

The bill reported was an amendment in the nature of a substitute, eliminating the requirement that the agency estimate whether the mechanical specialty work is over or under \$5,000 and voiding requirement of advance preparation of plans and specifications of mechanical specialty work on lump-sum contracts. It also extends provisions of the bill to include sub-subcontractors in the mechanical specialty field, and revises the definition of specialty work as a unit, rather than breaking it down.

The Comptroller General would have access to contractors' and sub-contractors' records and books until three years after final payment.

Provisions of the bill would not apply to contracts to be performed

Bill on Naming Subcontractors Reported Out, Killed by Senate

• A.G.C. Concludes Arguments with 7 Witnesses

outside the United States, including Alaska, to those under \$25,000 (aggregate amount), of those which an agency head determines would be unduly delayed by the procedure in the face of a "public exigency."

The subcommittee stated, in part:

"The code of ethics of the General Contractors Association and the Handbook of the Institute of American Architects (probably A.I.A.) as well as the codes of conduct of the subcontracting groups including the Trade Practice Rules for the electrical contracting industry promulgated by the Federal Trade Commission in 1931, contain strong admonitions against this (bid shopping) practice. Witnesses agreed that the majority of contractors do not desire to indulge in this unfair practice. However, it is realized that the practice appears rather prevalent, particularly on government construction projects, and the tendency appears to be increasing. This, obviously, will make it increasingly difficult for both the ethical general contractor and the ethical subcontractor to compete against those members of the industry who engage in bid shopping.

The inevitable result is to restrict the number of qualified subcontractors who are willing to participate in government construction work, and it makes those who do participate put in their bids at the last minute and sometimes at an artificially increased figure to the distress of the general contractors."

Report Ignores Bid Peddling

It is noteworthy that the subcommittee did not mention bid peddling in its report. It also disagreed with governmental views that the procedure would place an added administrative burden on agencies.

While the language of most of the report, written by the subcommittee, highly recommended the bill, it was prefaced and ended "without recommendation" by the full committee.

Seven witnesses concluded testimony against the bill for The Associated General Contractors of America on June 3, and rebuttal statements were heard from specialty contractor associations sponsoring the measure. (History of the bill and earlier testimony are reviewed in the May and June issues of THE CONSTRUCTOR.

Statement of H. E. Foreman, A.G.C. Managing Director

» MEMBERS OF The Associated General Contractors of America are vitally concerned with S. 2907, and similar bills introduced into the House. In our judgment these bills are contrary to the best interests of the government, of the general contracting industry, of the smaller specialty and subcontractors, and would serve to increase the cost of construction.

In our judgment, these bills have far-reaching effects which are not immediately apparent to persons not directly connected with the industry.

The primary position of the A.G.C. is that the general subject treated by S. 2907 is a matter of industry practices and industry ethics and therefore is not a subject for legislation by Congress. We believe that this is a matter which can be settled more satisfactorily to all parties concerned by improving relationships within the industry.

One of the basic principles of sound construction, for either a public or a private agency, is that maximum efficiency and economy are secured when undivided responsibility for construction of the project is centralized in a competent general contracting firm.

Creative Management

The general contractor has the important function of creative management to plan and coordinate all of the interlocking operations so that a project of specified quality is completed on time for the lowest possible cost. Normally the general contractor has the financial responsibility of doing this.

The principles of contracting, and of the bidding and awarding of specialty and subcontracts guiding A.G.C. contractors are recognized by the federal agencies which award construction contracts, and their policies

A.G.C. Witnesses Who Testified

Below is a list of A.G.C. witnesses who appeared before a subcommittee of the Senate Judiciary Committee on June 3 to oppose S. 2907:

C. Clark Macomber, George B. H. Macomber Co., Inc., Boston, Mass.

H. C. Turner, Jr., Turner Construction Co., New York.

A. E. Budell, Industrial Engineering Co., New York; president, Metropolitan Builders Association of New York.

J. D. Tuller, The Tuller Construction Co., Red Bank, N. J.

D. N. Chambers, Farnsworth & Chambers, Houston.

H. E. Foreman, Managing Director, A.G.C., Washington.

John C. Hayes, Hayes & Hayes, A.G.C. Counsel.

and administrative procedures generally follow these principles.

Government agencies have found it distinctly to their advantage to centralize the management responsibility for the construction of a project in one competent general contractor.

S. 2907, if enacted, would hamper seriously the general contractor in determining which specialty contractor

is best suited for the particular work, and therefore would hamper him in the proper discharge of the responsibilities which government agencies want him to have.

Section 3 of S. 2907 would alter the standard industry practices for the awarding of specialty contracts, and would in effect constitute legislation to regulate industry practices and ethics.

Neither bid shopping nor bid peddling are recognized as good business practices in the industry, nor condoned by codes of ethical conduct so far as we know. The practices come within the classification of business relationships, and as such we do not believe that they are a proper subject for legislation, or can be cured by it.

The A.G.C. Code of Ethical Conduct has a separate section which recognizes the need for fair dealings by the general contractor with subcontractors and those who supply materials. Senator Sparkman has previously introduced into the record that portion of the code. If you wish, I will be pleased to offer for the record the complete code which was originally adopted in 1925, and which was re-studied and reapproved in 1947. Through the years the A.G.C. has stood behind this code, and we believe that our efforts have met with much success.

Our Executive Committee in 1950 stated in part: "The problems of handling specialty contracts for building construction are problems of harmonious industry relationships for which both general contractors and specialty contractors have responsibility for fair dealings; that they are not problems which are solved by subjecting the construction industry to further federal or state legislation.

Our opinions have not changed, and we recommend that the committee take no steps to enact S. 2907, or similar legislation. On behalf of A.G.C. and its members I can state that we will continue to offer our cooperation toward settlement of industry problems.

S. 2907 would add to the administrative costs of government agencies. They would be forced to engage additional personnel and take additional time to evaluate the bids made by specialty contractors. Government agencies can hold their administrative costs to a minimum by placing the responsibility on the general contractor for evaluating the bids of specialty contractors, coordinating their work, and completing the project according to specifications and on time.

Adds to Construction Costs

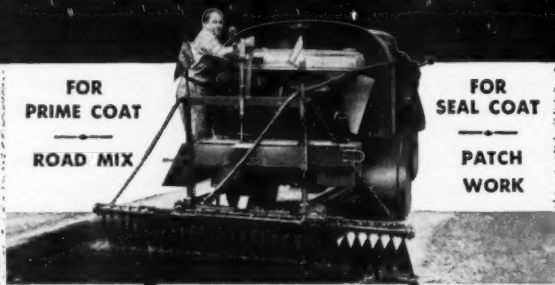
Passage of S. 2907 would be more likely to add to the cost of construction of federal projects than to decrease them. The requirement to name specialty contractors and the amounts of their bids would tend to tie the hands of the general contractor, and

(Continued on page 41)

STANDARD STEEL PRESSURE DISTRIBUTOR

FOR
PRIME COAT
ROAD MIX

FOR
SEAL COAT
PATCH
WORK



**FULL CIRCULATING SPRAY BAR
GIVES UNIFORM SPREAD OF MATERIAL
THROUGHOUT LENGTH OF BAR ...**

SIMPLIFIED PIPING PERMITS FAST LOADING AND LAYING ...

✓ 25% More Asphalt shot per day! Faster loading! No delays Starting! Instant cleaning at end of run! These are facts known to every operator of **Standard Steel Pressure Distributors!** Why? Because of the simplified piping in this equipment! The full circulating spray bar contains submerged valves which are quickly heated and remain uniformly hot at each point of pouring. The throw of a single lever opens and closes all valves instantly. Every inch of the spray bar delivers precisely the same material output—lightest or heaviest bituminous material. And there are 12 other special features that make this equipment outstanding in performance. Write for catalog 424 today for complete details.

OTHER PRODUCTS

Maintenance Distributors, Tar Kettles, Patch Rollers, Supply Trucks, Tool Heaters, Asphalt Tools, Street Flushers, Construction Brooms.

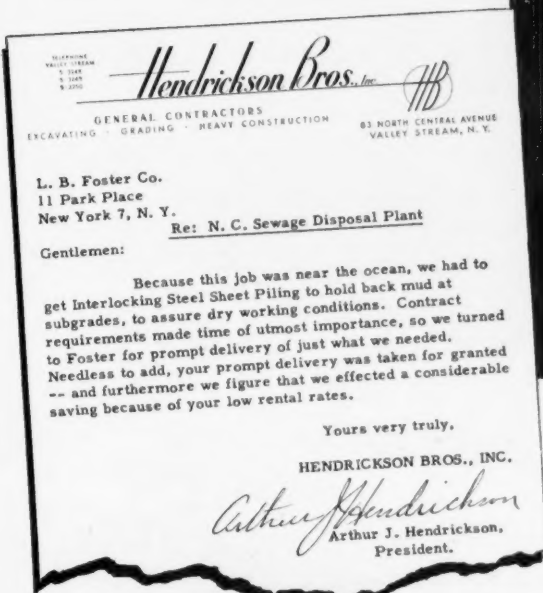


Standard Steel Works, NORTH KANSAS CITY, MO.

HIGH UP

... on the list of "Economy Short-cuts"
for the \$4 Million Nassau County
Sewer Expansion was ...

FOSTER RENTAL PILING



TELEPHONE
VALLEY STREAM
N. 1247
N. 1248
N. 1250

Hendrickson Bros., Inc.
GENERAL CONTRACTORS
EXCAVATING • GRADING • HEAVY CONSTRUCTION

83 NORTH CENTRAL AVENUE
VALLEY STREAM, N. Y.

L. B. Foster Co.
11 Park Place
New York 7, N. Y.

Re: N. C. Sewage Disposal Plant

Gentlemen:

Because this job was near the ocean, we had to get Interlocking Steel Sheet Piling to hold back mud at subgrades, to assure dry working conditions. Contract requirements made time of utmost importance, so we turned to Foster for prompt delivery of just what we needed. Needless to add, your prompt delivery was taken for granted -- and furthermore we figure that we effected a considerable saving because of your low rental rates.

Yours very truly,

HENDRICKSON BROS., INC.

Arthur J. Hendrickson
Arthur J. Hendrickson,
President.



66-inch diameter precast conduit at an average depth of 35 ft.—placed atop a 7-inch concrete slab.



Piling holds back mud for The Sanitary Trunk Sewer conduit which ran 7 miles on Long Island's South Shore.

1,000 feet of Foster Rental Piling serviced 10,000 feet of this job for Hendrickson Bros. They rented 1,000 ft. to be driven in the relatively soft subsurface a total of ten times—piling being in place a week before pulled for re-use in advanced location. The complex piling requirements were best serviced from Foster's large rental stocks with the exact lengths and the exact sections the job required, at economical low rental rates.

Let us quote you on our low-cost piling rentals—prompt service from five Foster warehouses. Send for Free Piling Brochure illustrating diagrams of all standard-make sections, ask for Bulletin CP-7.

RAILS—TRACK EQUIPMENT • PIPE • WIRE ROPE

L.B. FOSTER co.

PITTSBURGH 30, PA. • NEW YORK 7, N.Y. • CHICAGO 4, ILL. • HOUSTON 2, TEX.

SUCCESSFUL CONTRACTORS STAY SUCCESSFUL WITH PROVED EQUIPMENT!



It's another

NORTHWEST

for
**C. J. Langenfelder
& Son, Inc.**
Baltimore, Md.

IF YOU have never used a Northwest it would be surprising if you have never wondered why, year after year, so many contractors have repeatedly ordered Northwest equipment.

Many of these Northwest owners have had experience with other makes of similar equipment—many of them have owned other similar equipment—but they always continue to buy Northwests.

C. J. Langenfelder & Son, Inc., Baltimore, Md., are contractors of long standing, well-known—successful. They can own any make of Shovel, Crane, Dragline or Pullshovel they want, but,—they have just put their 11th Northwest to work on another large job near Baltimore.

Northwest brings you dependability that keeps costs down. Northwest brings you a combination of advantages and a versatility found in no other similar piece of equipment. You are going to make plans for future purchases. Now is the time to learn about Northwest. Talk to Northwest users and then discuss your problem with a Northwest Sales Agent.

NORTHWEST ENGINEERING COMPANY
1528 Field Building, 135 South LaSalle Street, Chicago 3, Illinois

(Continued from page 38)

add another hazard to his business against which he would prudently seek to protect himself. For his own protection he would be more inclined to take one of the higher rather than the lowest bid in the hopes of selecting a specialty contractor who would perform the work on schedule.

Requirements such as those in S. 2907 which tend to restrict the general contractor in the discharge of the responsibility placed upon him by the federal government will lead to his taking protective measures which will add to his costs.

The general contractor has the responsibility to the federal government—and to all purchasers of construction—to execute the work in accord with the plans, specifications and time limit at the lowest possible cost. The fact that the general contractor has this responsibility benefits the government.

A number of general contractors have given information to the committee on how this legislation would hamper their operations. At the time the general contractor submits his bid it is almost impossible for him to properly evaluate the prices and potentialities for satisfactory performance on the particular project of all the bids for specialty work.

Would Hamper General Contractors

In order to carry out his work properly the general contractor must determine which specialty contractor for the lowest price can carry out the work in accordance with the specifications, and will have the supervisory personnel, workmen, equipment, and financing to carry out the specialty work in accord with the scheduling required for completion of the entire project within the required time.

Particularly on federal projects, general contractors may be required to bid on from dozens to scores of alternates. It is a highly complex task for the government agency to determine which general contractor is low bidder. After the contract has been awarded, the contractor has another complex problem of determining how he should award the subcontracts in view of the combination of alternates finally selected.

Limiting the general contractor to the specialty contractors named in his bid seriously hampers his ability to select the proper specialty contractor for the particular work.

S. 2907 would have the effect of

reducing competition for specialty contracts, and to tie the hands of the general contractor who seeks to secure the best quality of specialty work at the lowest possible price.

If the general contractor is required to name his proposed specialty contractors without the opportunity to properly evaluate all bids, the tendency will be for him to name the larger specialty contractors and not chance smaller and lesser known ones.

The bill as drafted apparently would require the general contractor to use one of the specialty contractors who had been named, although in his opinion all of the bids were too high. With competition curtailed there could be a temptation to keep prices high.

Harmful Effects On Small Business

S. 2907, if enacted, actually would have a harmful effect on small specialty contractors. The benefits, if any, would be to the larger ones.

If the general contractor is forced to use the subcontractors named in his bid, or otherwise named, his tendency would be to name the larger specialty contractors who would be expected to have the capacity required for the particular project. The tendency would be to freeze out the smaller specialty contractors, or those new to the business, who would need some time to demonstrate to the general contractor that they did have the capacity for the work.

Should the bill become enacted and the naming of specialty contractors prove excessively troublesome to general contractors, their tendency would be to absorb or acquire specialty contracting firms, or to start new ones of their own.

S. 2907, if enacted, would not stop the practices of bid shopping or bid peddling unless an unreasonably heavy policing burden were placed upon the federal agencies awarding construction contracts.

Burden Laid on Government

Section 2 of S. 2907 would require that before awarding a cost-plus-a-fixed-fee contract the government agency estimate the cost of each class of mechanical specialty work, and require that the work be done by a specialty contractor unless the general contractor presumably has clearly demonstrated to the government that he is qualified to perform the work himself, and it requires naming the subcontractor or general contractor to perform the work.

This provision places an unreasonable burden upon the government. In many cases the general contractor could not intelligently comply with it.

Government contracting agencies by law and by their own policies award fixed-fee contracts only in the rare cases when there is no alternative. They are used primarily when speed is of the greatest importance and construction is to be started before the plans and specifications required for bidding can be prepared.

To require the government to make a reasonable estimate of the amount of each class of mechanical specialty work before a contract is awarded would cause delay and defeat the purpose for which fixed-fee contracts are used.

Until the scope and character of the work is known, the general contractor may not be able to make an intelligent selection of the specialty contractor best qualified for the particular work.

We believe that this section of the bill serves no useful purpose because a general contractor operating under a cost-plus-a-fixed-fee construction contract with a federal agency must have all of his actions approved by the government agency before he undertakes any portion of the work. The government now has the authority to require its approval of all subcontracts on fee contracts.

A Matter of Industry Cooperation

Responsible general contractors clearly understand the value and importance of competent and reliable specialty and subcontractors in the construction of projects. As a matter of good business, and their own selfish interests, they also understand the benefits of being fair and equitable in their dealings with these companies.

Previously we have referred to the A.G.C. Code of Ethical Conduct. Under it subcontractors or others who believe that they have been unjustly treated by an A.G.C. member may file their complaints. In the 27 years the code has been in existence only one complaint has been filed against a general contractor on the charge of bid shopping. In that case the evidence was such that a public retraction of the charges against the general contractor was made.

While the House bills may give the appearance of removing some of the objections to S. 2907 and some of the inequities, a thorough study of them will reveal that they are even more detrimental to the interests of the

federal government and general contractors than S. 2907.

The whole effect of the Senate and House bills would be to discourage prudent and responsible general contractors from bidding on federal construction projects.

There are approximately \$1 billion in unexpended military construction funds. Additional military construction appropriations are now being considered by the Congress. The Atomic Energy Commission also has a multi-billion dollar construction program in the next few years for which contracts have not been awarded.

We strongly recommend that the committee before taking any action on this proposed legislation hears the views of all of the federal agencies which award construction contracts on what they consider will be the effect on their construction programs.

If the principles of S. 2907 were to be adopted, then it would be entirely logical that the same principles should be adopted for all other federal procurement, civilian and military. We recommend that the committee consider the possible added administrative burdens for the defense establishment if subcontractors in manufacturing industries were to seek the same privileges sought by construction subcontractors.

Conclusions Enumerated

1. We believe that this legislation would be contrary to the best interests of the government in that it would tend to increase construction costs, and add to the administrative and legal responsibilities of governmental agencies.

2. We believe the legislation would be contrary to the best interests of general contractors in that it would add another uncertainty to the business of contracting for governmental agencies against which the prudent general contractor would seek to protect himself, and it would hamper the general contractor from exercising his function of undivided responsibility.

3. We believe that the legislation is contrary to the best interests of small business, particularly of the small specialty or subcontractor who would tend to be frozen out of consideration.

4. We believe that enactment of the legislation would tend to reduce competition in the award of specialty contracts.

5. We do not believe that legislation is the remedy to bring about better business practices and more observance of codes of ethics.

Since its establishment in 1918 The Associated General Contractors of America has been working with all of its energy and intelligence to bring about higher standards and better relationships in the construction industry so that the industry can continually provide the public with greater value for its investment in construction.

We believe that great progress has

been made during the past 30 odd years. We believe that there has been an increasing awareness that high standards and ethical practices are good business.

We believe that an industry should use all its ingenuity to solve its own problems, and not seek legislation from Congress on matters which are primarily problems of the industry.

Statement of John C. Hayes, A.G.C. Legal Counsel

» THE PURPOSE of S. 2907, which is now being considered by your committee, is stated to be "To prescribe policy and procedure in connection with construction contracts made by executive agencies, and for other purposes." Cost-plus-a-fixed-fee and lump-sum contracts (bid or negotiated) that are in excess of \$25,000.00 or embrace mechanical specialty work in excess of \$5,000.00 are covered by the proposed bill.

Sec. 2 (a) makes it mandatory that each class of mechanical specialty work under cost-plus-a-fixed-fee contracts covered by the proposed bill be performed by an independent mechanical specialty subcontractor or by a general contractor qualified to perform such mechanical specialty work. Likewise, the name of the independent mechanical subcontractor or the qualified contractor must be submitted and approved by the procuring agency before the mechanical work is commenced.

Sec. 3 (a) prohibits the awarding or signing of any lump-sum contract covered by the proposed bill unless the agency first makes an estimate of cost of each class of mechanical specialty work involved, and prepares plans and specifications with respect to each class; and the contractor sets forth in his bid the name of the subcontractor who will perform each class of mechanical work, together with the cost to the contractor of each class of work.

Sec. 3 (b) requires contractors doing their own mechanical work to set forth in the bid, or in a filed statement, the cost at which he will perform each class of mechanical work.

Sec. 3 (d), (e), and (f) set forth in detail the procedure to be followed by executive agencies and general contractors in cases wherein the subcontractor fails or refuses to perform or complete his subcontract.

The concluding Section 5 of the bill defines "executive agency," "construction contract," "mechanical specialty work," "contractor qualified to perform

mechanical specialty work," "independent mechanical specialty subcontractor," "contractor," "person," and "lump-sum contract."

The impact of this proposed legislation on government and industry merits your committee's careful consideration. Government agencies are required to assume added legal and administrative responsibilities calling for increased personnel and increased cost to the taxpayer. Separate estimates by government agencies are mandatory for each class of mechanical specialty work on cost-plus-a-fixed-fee work. On lump-sum work, in addition to separate estimates, government agencies must prepare separate plans and specifications for each class of mechanical specialty work. Augmenting the staffs of the government agencies with this type of trained personnel should present a major problem, to say nothing of the additional costs entailed.

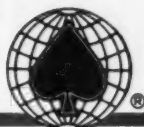
Agencies Must Increase Staffs

Government agencies are likewise charged with the responsibility of approving the contractor who will perform each class of mechanical specialty work involved. A contractor, to qualify, must maintain a supervisory, administrative, and technical staff which has proven on previous projects to be competent to supervise, control and direct each class of mechanical work involved. These, with other provisions in the proposed bill, appear to require each government agency to maintain a staff of investigators and accountants.

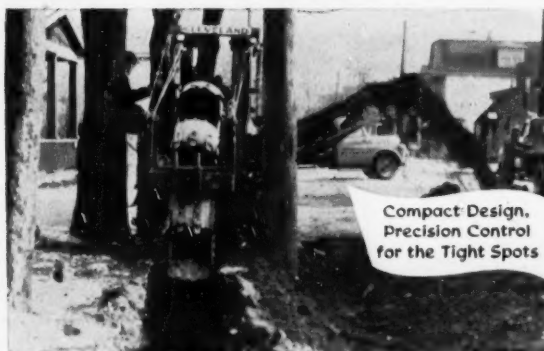
Many legal controversies will confront government agencies and the courts if this proposed bill ripens into law. The time-old legal relationship between the general contractor and the subcontractor will undergo a marked change. The subcontractor will become an associate contractor and the general contractor will be practically eliminated as a competitive factor.

(Continued on page 45)

YOU *Do More* WITH **CLEVELANDS**



more trench... in more places... at less cost...



Compact Design,
Precision Control
for the Tight Spots



Power, Speed
and Durability for
the Toughest Jobs

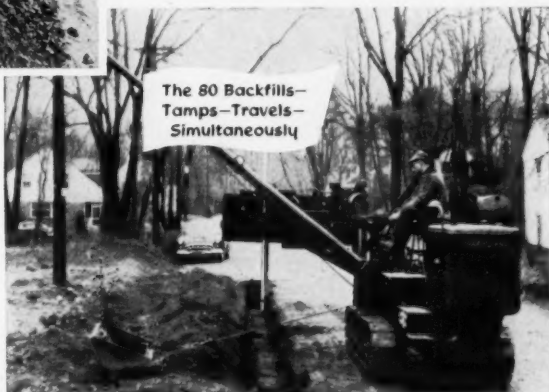
CLEVELANDS' wide range of speed combinations, their wide variety of trench sizes and their famous dependability assure you *more trench*.

Compact, correctly balanced, full crawler maneuverability and lower ground bearing pressure permit working in close quarters, in all soils and terrain — assure fast easy loading for quick jumps by truck and trailer — for work *in more places*.

Correctly designed, built of finer, tougher materials CLEVELANDS conserve fuel and stay running longer *at less cost*.

CLEVELAND MODEL 80

Backfills • Tamps • Lays Pipe
Does all types of Light Crane work
One-Man Operated
Saves Time, Work and Money on
all trench completion jobs



The 80 Backfills—
Tamps—Travels—
Simultaneously



SEE YOUR LOCAL DISTRIBUTOR
for complete information on CLEVELAND
TRENCHERS and the CLEVELAND 80,
or write for Bulletins S-111 and S-120



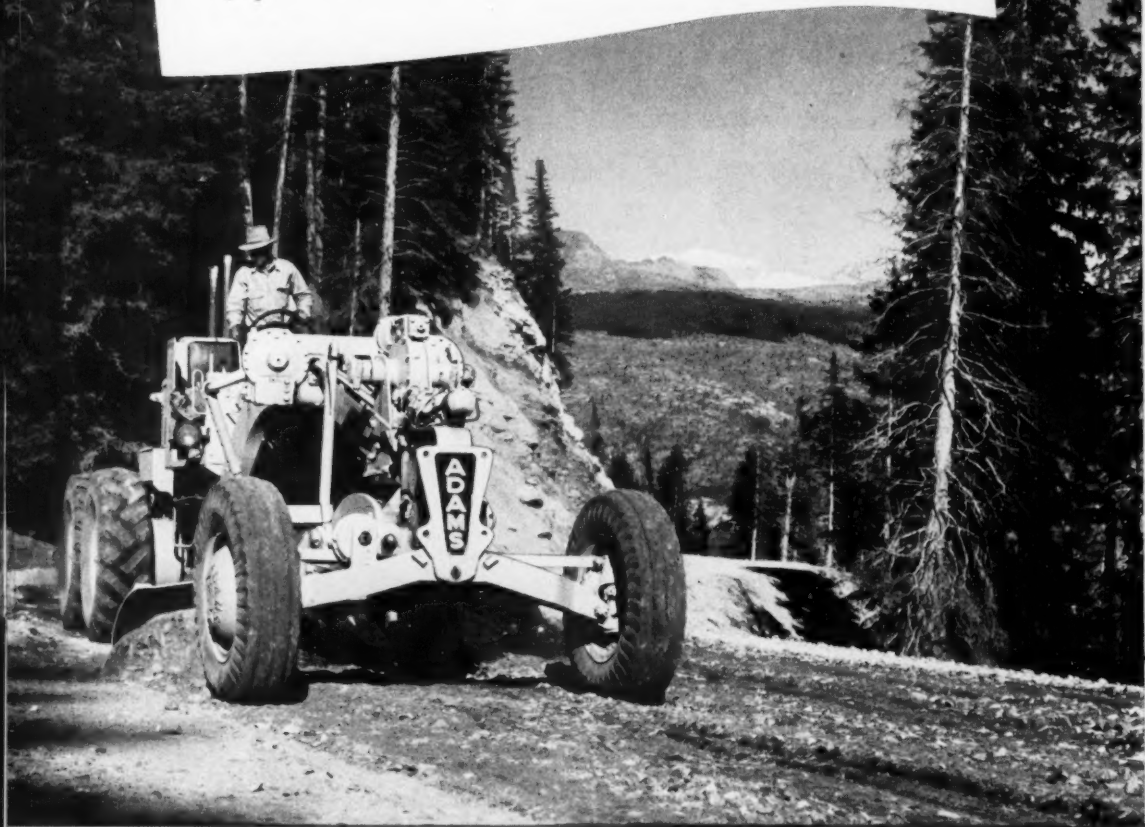
Pioneer of the Modern Trencher
THE CLEVELAND TRENCHER CO.

20100 ST. CLAIR AVE.
CLEVELAND 17, OHIO

"ADAMS — Best Motor Graders we have ever used . . .

and this applies to all types of heavy highway construction—grading, road mixing, scarifying, etc. We find the Adams has more weight for increased traction, better stability, greater over-all dirt-moving capacity and plenty of power to handle all jobs easily." So reports Northwestern Engineering Co., Denver, Colorado.

Discover why Adams Motor Graders are becoming the first choice of more and more users the world over. See your local Adams dealer.
J. D. ADAMS MANUFACTURING CO., INDIANAPOLIS, IND.



*Make your next
motor grader an*



(Continued from page 42)

This change in status, together with the required approval by government agencies, raises the immediate question of what, if any, responsibility is assumed by the general contractor for the performance of any mechanical specialty work. This hybrid relationship will provoke many controversies and insure the filing of many claims of various kinds that will require the time of the government agencies and the courts.

Conflict with Labor Laws

There is also the question of conflict between this proposed legislation and the Taft-Hartley and Bacon-Davis Acts, particularly in regard to the definition of mechanical specialty work set forth in Sec. 5(3). This relates to questions of jurisdiction, especially as to the predetermination of prevailing wage rates.

Your committee should likewise take into consideration the fact that if the mechanical specialty groups seeking this legislation should prevail, the numerous non-mechanical specialty groups would undoubtedly immediately ask your committee for the same preferential treatment, and, in fairness, would be entitled to it. If this situation came to pass the government agencies would be so bogged down that orderly construction work would be jeopardized.

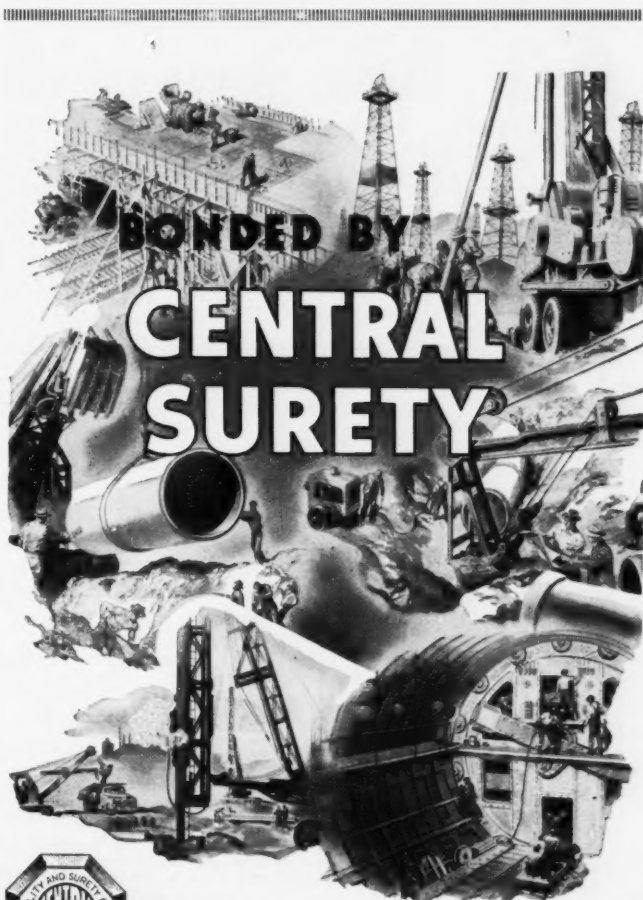
Minority Seeks Own Benefit

The proposed bill is a good illustration of a minority group in the construction industry attempting to regulate the industry for its own benefit by legislation. In short, it appears to be a step toward the creation of a monopoly for the benefit of the large operators in the mechanical specialty groups. As Mr. Foreman points out in his statement, it is difficult to see how the proposed legislation benefits small business. To the contrary, it appears to erect a barrier against the small operators and against newcomers seeking to enter this field.

Some members of the sponsoring groups appear to have a penchant for the elimination of competition. The proposed bill tends to confirm this belief. Evidence of a desire to eliminate competition may be found in a study of anti-trust suits affecting some members of the sponsors of this proposed bill. For example, the case of *Allen Bradley Company, et al.*, 325 U.S. 797. In that case a group of electrical contractors, manufacturers

of electrical equipment, and members of the Local IBEW Union entered into mutual agreements. Under these agreements the electrical contractors were obligated to purchase equipment from none but local manufacturers having closed shop agreements with the local union. The manufacturers agreed to confine sales in the New York City area to electrical contractors employing the local union members. This

type of individual employer-employee agreement expanded into industry-wide agreement looking not merely to terms and conditions of employment but also to price and market control. Boycott was used to bar from the area equipment manufactured outside its boundaries. Manufacturers outside the city and state of New York sought relief by filing injunction proceedings. The case was carried to the Supreme Court



BONDED BY
CENTRAL
SURETY



CENTRAL SURETY AND INSURANCE CORPORATION

R. E. MCGINNIS, President

HOME OFFICE KANSAS CITY, MISSOURI

Buda Model
HBQ 270°
Turntable
Mounted
Earth Drill



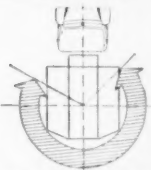
solve more HOLE DRILLING PROBLEMS

WITH BUDA EARTH DRILLS AND ACCESSORIES

NEW!

QUICK, EASY LOCATION

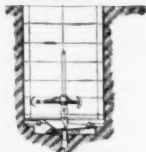
Turntable mounting of Earth Drill permits drilling at any point in 270° arc around the unit.



NEW!

HOLE PROTECTION IN UNSTABLE SOIL

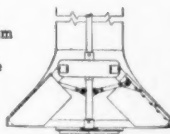
Helix and Caisson Undercutter Combination permits drilling and casing hole in 1 operation



NEW!

DRILL FOUNDATION PIERS

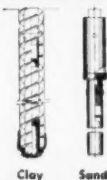
Belling Tool enlarges bottom of bored hole to assure more bearing area and positive anchorage of concrete



NEW!

FASTER, EASIER SOIL SAMPLING

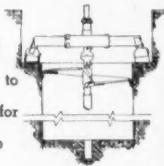
Permits procurement of uncontaminated samples with minimum amount of disturbance to depths of 100 ft.



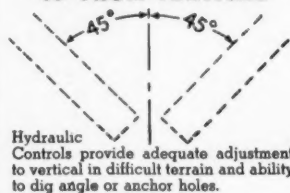
NEW!

DRILL LARGER ACCESS HOLES

Reaming Tool enables standard Earth Drill to enlarge hole up to 60" dia.—eliminates need for specially built, heavy, expensive equipment



ANGLE DRILLING 45° FROM VERTICAL



Write for Bulletins giving diameter, depth and type of work for which equipment is needed. The Buda Company, Harvey, Illinois

BD-9

Nation-Wide Service

Write for name of your nearby
Buda Earth Drill Distributor
THE BUDA COMPANY
HARVEY • ILLINOIS

BUDA

COAST TO COAST

CONTRACTS • SPECIFICATIONS

of the United States, where the right to relief by injunction was upheld. The opinion of the Court stressed, "The primary objective of all anti-trust legislation has been to preserve business competition and proscribe business monopoly." The Court, in making mention of the Sherman Act, makes it crystal clear that the act was intended to make it certain that competition should be the rule in all commercial transactions. S. 2907 would accord mechanical specialty contractors an important competitive advantage in the construction industry and would do much to nullify business competition, and could afford the large mechanical specialty contractors at least a limited business monopoly.

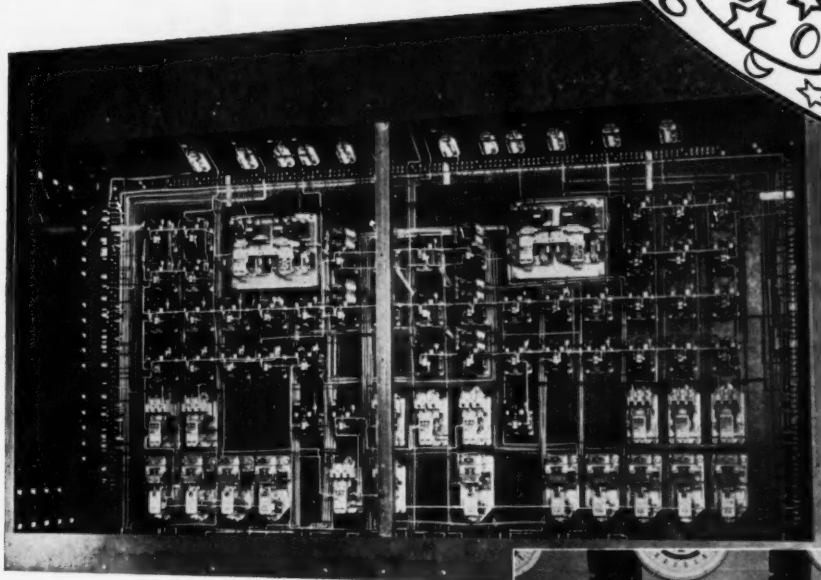
Plumbing Case Is Example

Then there is the case of *United States v. Central Supply Association, et al.*, 6 Federal Rules Decisions 526, in which the government in March 1940 sought and obtained an indictment against 102 defendants and 115 co-conspirators. The indictment charged a conspiracy, national in effect, to violate Sec. 1 of the Sherman Act, involving four strata of the plumbing industry: the manufacturers, jobbers, master plumbers, and journeymen plumbers. By agreement, due to World War II the trial of the case was continued until 1947, at which time motions for judgments of acquittal were filed and granted by a district court in Ohio. It was the government's contention that an agreement existed "with respect to all plumbing supplies, to sell, to purchase, to distribute, to supply and to install only under the 'restricted system of distribution,' and to boycott, to blacklist, to discriminate against, to coerce, to refuse to sell plumbing supplies to, and to refuse to supply labor to 'any person who would not agree to follow the artificial and uncompetitive terms and conditions of the restricted system of distribution.'" Recourse to the Federal Digest will disclose that these are not isolated cases.

May Abuse Trade Principles

In conclusion, it is respectfully requested that your committee obtain from the various government agencies statements as to the effect of this proposed legislation legally, administratively, and cost-wise, and, in particular, a statement from the Federal Trade Commission relating to the effect of the proposed legislation on the preservation of business competition.

The *Electrical* WIZARD of WAUKESHA



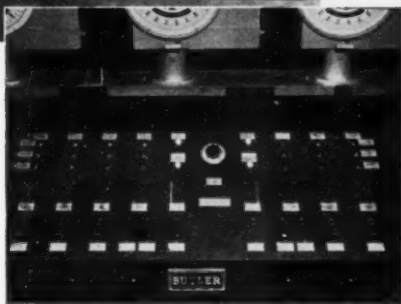
How completely automatic and fool-proof can a Central Mixing Plant get?

BUTLER has the answer in the control system built for the BUTLER Central Mixing Plant destined to pour concrete for the gigantic H-Bomb Plant.

Complex? Yes — vastly. Just glance at the wiring. But it's fool-proof and positive in its operational sequence as the sun. So completely interlocked that it rejects human mistakes, this BUTLER wizard batches 7 materials including water with split-pound accuracy in record breaking time.

Need for such equipment does not arise every day. But the point is this: that BUTLER Engineers can conquer a problem of such complexity is sound evidence of exceptional experience and ability. And that pays off in an exceptional profit for you.

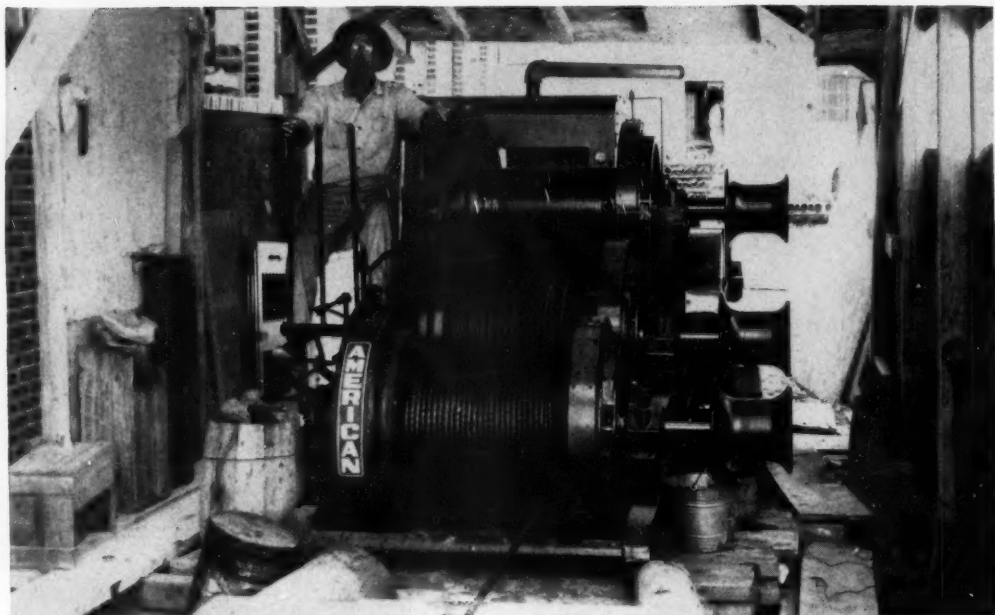
So whether it's a Central or a Ready Mix Plant, a Roadbuilders or a Concrete Products Plant you have in mind — consult the BUTLER ENGINEER.



BUTLER BIN COMPANY

Waukesha, Wisconsin

Outselling all others



THIS year, as for many years past, contractors are buying more American construction hoists than those of any other make. We make this statement not as a matter of pride for us (although it is) but as a clue to smart purchasing for you.

The picture above shows a 3-drum Model 75 American General Purpose Hoist, owned by R. P. Farnsworth & Co. Inc., New Orleans, at work on a new dormitory at Tulane University. It is one more proof of the fact that experienced, successful builders—who know their costs down to the penny

—have a distinct preference for American hoists.

A full list of the “reasons why” would show dozens of design features, engineering features, assembly features quite different from those of other hoists. But the simple facts are that American hoists work better on the job, stay on the job longer, and —most important of all—*make more money for their owners*. That’s why they outsell all others.

Is this the kind of equipment you want? If so, choose your next hoist from the world’s broadest line, through your American distributor.

Modernize...economize...with

American Hoist

& Derrick Company

ST. PAUL 1, MINNESOTA

Mail this coupon

2102

American Hoist & Derrick Co.
St. Paul 1, Minnesota

● Please send catalog on

**AMERICAN GENERAL
PURPOSE HOISTS**

NAME

COMPANY

ADDRESS

CITY STATE

» A SENATE COMMITTEE on June 4 reported and recommended passage of S. 2487, to offset effects of the Supreme Court decision in the Wunderlich case and provide for judicial review of disputes arising under federal contracts. It was in line with recommendation of The Associated General Contractors of America.

However, the fate of this important measure was a moot question at press time when the Senate had failed to act on the bill in its rush to adjourn.

Senate Passes S. 2487 on July 3—News of Month, page 5

The bill was expected to pass in the last week of June when it came up on the Senate's calendar of noncontroversial bills, but was stymied when Senator Paul Douglas (D., Ill.) asked for time to study results of the hearings. Meantime, the House Judiciary Committee, which held no hearings, had failed to report it out in its heavy schedule.

A final chance for passage was expected when the Senate calendar came up again in the first week of July, with known objections to the bill cleared away. Failure of the House committee to report it meant that, in the event of Senate passage, the bill would have to be introduced on the floor of the House under a suspension of the rules for final passage by Congress in this session.

Text of Bill Quoted

As amended by the Senate Judiciary Committee, text of the bill is:

"Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, That no provision of any contract entered into by the United States, relating to the finality or conclusiveness, in a dispute involving a question arising under such contract, of any decision of an administrative official, representative, or board, shall be pleaded as limiting judicial review of any such decision to cases in which fraud by such official, representative, or board is alleged; and any such provision shall be void with respect to any such decision which the General Accounting Office or a court, having jurisdiction, finds fraudulent, grossly erroneous, so mistaken as necessarily to imply bad faith, or not supported by reliable, probative, and substantial evidence.

"Sec. 2. No Government contract shall contain a provision making final on a question of law the decision of

Senate Judiciary Reports Bill to Offset Wunderlich Decision

• Favorable Recommendation Late in Heavy Session

an administrative official, representative, or board."

Title of the bill was amended to read: "A bill to permit review of decisions of government contracting officers involving questions of fact arising under Government contracts in cases other than those in which fraud is alleged, and for other purposes."

Committee Outlines Purpose

In its report, the Senate Judiciary Committee wrote in part:

"The purpose of the proposed legislation is to overcome the inequitable effect, under a recent Supreme Court decision, of language in government contracts which makes the decision of the contracting officer or the head of the agency final with respect to questions of fact; and to prohibit the insertion of language making the decisions of a contracting officer final on questions of law.

"For a number of years it has been the practice of government agencies to insert in government contracts a so-called finality clause, which reads as follows:

"Article 15. Disputes—Except as otherwise specifically provided in this contract, all disputes concerning questions of fact arising under this contract shall be decided by the contracting officer subject to written appeal by the contractor within 30 days to the head of the department concerned or his duly authorized representative, whose decision shall be final and conclusive upon the parties thereto. In the meantime the contractor shall diligently proceed with the work as directed."

"In November of 1951 the Supreme Court decided in the case of *United States v. Wunderlich, et al.*, that the insertion of this clause in the contract foreclosed a judicial review of disputes concerning questions of fact, unless the aggrieved party alleged and proved fraud with respect to the decision of the department head or contracting officer. The Court went on to say 'by fraud we mean conscious wrongdoing, an intention to cheat or be dishonest.'

"The impact of this decision on the many business firms who, in a condition of expanding production with re-

spect to the defense of the United States, must deal with many of the government departments in government construction and defense materials, was one that could only cause great expense to the United States in that the contractors would be forced to puff up their bids so as to be sure of sufficient funds to provide for unforeseen contingencies.

"It must be borne in mind that to the same extent this decision would also operate to the disadvantage of an aggrieved contractor, it would also operate to the disadvantage of the government in those cases, as sometimes happens, when the contracting officer makes a decision detrimental to the government interest in the claim.

"For these reasons, the Committee on the Judiciary, after extensive hearings at which all interested parties, both private and governmental, were heard, recommends favorable consideration of this legislation.

"S. 2487 will have the effect of permitting review in the General Accounting Office or a court with respect to any decision of a contracting officer or a head of an agency which is found to be fraudulent, grossly erroneous, so mistaken as necessarily to imply bad faith, or not supported by reliable, probative, and substantial evidence.

"In other words, in those instances where a contracting officer has made a mistaken decision, either wittingly or unwittingly, it will not be necessary for the aggrieved party to, in effect, charge him with being a fraud or a cheat in order to affect collection of what is rightfully due."

A.G.C. Action Reviewed

The A.G.C., immediately after the Supreme Court handed down the decision, sent information to its members and started study of its implications. On January 5 letters were sent to the chairmen of the respective Judiciary committees recommending principles for legislation. Bills were introduced by the chairmen.

On February 15 Managing Director H. E. Foreman and John C. Hayes, counsel, explained to a Senate Judiciary subcommittee the principles recommended for legislation by the A.G.C.

How the Renegotiation Act Is Affecting Contractors

By John C. Hayes

Hayes and Hayes, Washington, D. C.

Widespread confusion and uncertainty are indicated by the large number of inquiries received from general contractors relating to the applicability to their operations of the Renegotiation Act of 1951. This is not surprising, as the present law is vastly different from prior renegotiation acts, especially as it affects construction.

The procedure is different and the scope much broader. Many new problems and vexing questions, arising for the first time, require consideration and decision by qualified personnel familiar with the operations of the construction industry. Individuals possessing this technical knowledge are difficult to find outside the industry itself, as the Renegotiation Board has experienced in attempting to engage personnel to assist it in deciding construction problems. It is understood that the board has taken steps toward obtaining the desired technical assistance and that this situation will improve within the very near future. In the meantime, though, few if any cases affecting general contractors will be processed.

Board Making Progress

Generally speaking, however, the Renegotiation Board, after considerable delay in the appointment of its members, is making rapid progress. A staff was promptly set up and, within a very brief period of time, a set of regulations was promulgated. Naturally, these regulations do not provide the answers to all the questions arising under the renegotiation law. The regulations may be expected to be amplified from time to time, as well as supplemented by published bulletins and interpretations. Thereby the board sets forth the details of the scope of the Renegotiation Act and of procedures to be followed under it.

The board has created six regional boards, each consisting of a chairman and four members, located in Washington, D. C., New York City, Chicago, Los Angeles, Detroit and Boston.

It is mandatory for each contractor holding contracts or subcontracts to which the Renegotiation Act of 1951 applies to file a financial statement on

or before the first day of the fourth calendar month following the close of its fiscal year. This is true without regard to whether or not a specific request for filing is received by the contractor from the board. This report is known as the "Standard Form of Contractor's Report." It is to be used by construction contractors, architects, and engineers, as well as others, and is to be adapted as necessary to their particular needs. Copies may be obtained from The Renegotiation Board, Washington 25, D. C., and completed reports are to be filed in duplicate therewith.

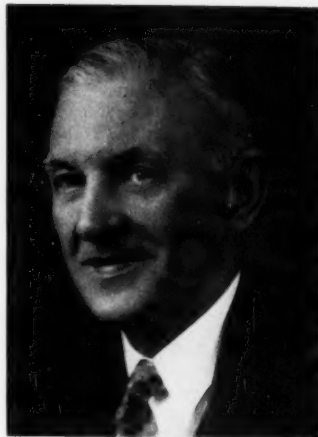
Who Is Subject to the Act

The minimum receipts subject to renegotiation are prescribed in the act as \$250,000 by a contractor or subcontractor during its fiscal year from renegotiable contracts or subcontracts (except that the minimum is \$25,000 in the case of certain subcontracts of a special nature as described in Section 103 (g) (3) of the statute). However, the fact that a contractor or subcontractor did not have such minimum receipts during its fiscal year does not relieve it from the necessity of filing a report, but only from furnishing in full particulars the financial information otherwise required.

Subsequent to the filing of a Standard Form of Contractor's Report by the contractor, the board will assign the case to a regional board for renegotiation if it determines that further proceedings are necessary. In cases where the board can readily decide, on the basis of the information contained in the Standard Form of Contractor's Report, that the contractor has not realized excessive profits for the fiscal year and that no useful purpose would be served, no assignment to a regional board will be made. The contractor will be so notified by the board.

Cases Will Be Classified

Cases will be designated by the board as either a "Class A" case or a "Class B" case at the time it is assigned to the regional board. Generally, a Class A case will be one in



John C. Hayes, legal counsel for The Associated General Contractors of America and *The Constructor*, has undertaken in this article to give a comprehensive review of the operations of the Renegotiation Act of 1951.

which the Standard Form of Contractor's Report discloses profits of more than \$400,000. In Class A cases the regional board may only make recommended determinations of excessive profits to the board, for final determination by the board. If the contractor is not satisfied with the determination made by the board, a review by the Tax Court may be had.

A Class B case will be one in which the Standard Form of Contractor's Report discloses profits of \$400,000 or less. In these cases the regional boards are authorized to make final determinations of excessive profits. The contractor has no stated right of appeal to the board from the determination made by the regional board, but the board in its discretion may review the finding. The right of review also applies to Class B cases.

The foregoing procedure represents a marked change from the procedure under the earlier renegotiation acts in effect during and subsequent to World War II. During this period, renegotiation proceedings were commenced and the cases processed largely by the contracting department, such as Navy, Army, or Maritime Commission.

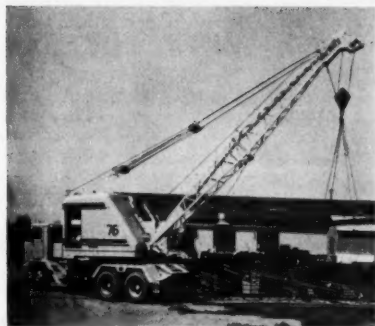
The coverage of the Renegotiation Act of 1951 also varies in many ways from the earlier laws. This is particularly true as to its applicability to the construction industry. Many

(Continued on page 53)

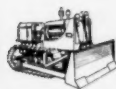
New **GarWood** Shovels



3/4 yd. Shovels, Cranes, and Truck Cranes!



No. 528



Gar Wood's new shovel line includes 3 base machines, the 75A standard-duty 3/4 yd., the 75B heavy-duty 3/4 yd. and the 75BT, 20 ton truck crane . . . All models can be easily converted *in the field* for shovel, lift crane, clam, dragline, magnet, trench-hoe and pile driver work . . . *Only* GAR WOOD offers the new *Foundation Borer*—an attachment that opens a new source of profit to power excavator operators! . . . GAR WOOD design combines such features as Instant Manual Controls; Power Actuated Drum Clutches; Dual Right Angle Drive; Fluid Couplings; Independent Chain Crowd plus many others . . . Check your GAR WOOD shovel distributor for complete information on the entire line!

Gar Wood construction equipment includes 12 new TipDozers and Dozecasters, both hydraulic and cable controlled, for use with all models of Allis-Chalmers tractors . . . Big, tractor-drawn scrapers work smoothly and efficiently on both large and small earthmoving jobs . . . The new "75" series, 3/4 yd. Gar Wood shovels and famous "Buckeye" Ditchers are useful on any job!

GAR WOOD INDUSTRIES, INC.

FINDLAY DIVISION • EXECUTIVE OFFICES • WAYNE, MICHIGAN

Construction Equipment: Excavators, Scrapers, Dozers, Ditchers, Spreaders, Finegraders, Truck-mounted Road Graders. Truck Equipment: Dump Truck Bodies & Hoists, Winches & Cranes, Refuse Collection Bodies, Elevating End Gates.

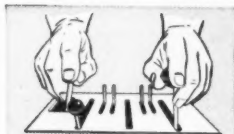
Makes rugged rock work easy

K-370 with power hydraulic controls packs extra power and stamina

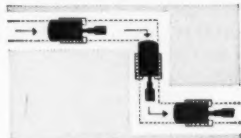


ROCKWOOD SLAG PRODUCTS, INC., Rockwood, Tenn., move over 25,000 tons of rock and 5,000 tons of slag per month with their Link-Belt Speeder $1\frac{3}{4}$ -yd. K-370. Operator Harold Boring says, "I don't believe there's a better rig made." Operator A. L. Long adds, "It's the finest operating machine I've ever been on."

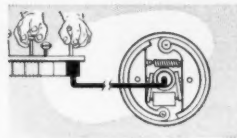
Here are Link-Belt Speeder PLUS FEATURES that work for you



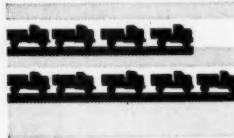
Speed-o-Matic Controls—fully hydraulic! You "feel" the load all the way. Simple, easy—fingers instead of muscles do work.



Turns on a Dime. Either track can drive or be locked independently. Hydraulic control gives instant response.



Speed-o-Matic Clutch, hydraulically actuated, simple, smoothly responsive. Runs cool. Eliminates need for frequent adjustments.



Up to 25% more production—fast operating cycle steps up output and profits. Effortless control keeps operator fatigue down.

LINK-BELT SPEEDER

CORPORATION

12, 002

Builders of the most complete line of shovels, cranes and draglines
CEDAR RAPIDS, IOWA

(Continued from page 50)

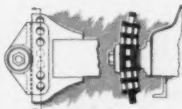
phases of the general contractor's operations exempt under previous acts are now subject to the present law. Heretofore, competitive bid contracts, off-shore work, and certain other operations were specifically exempted. Under the present law the mandatory exemptions are mostly limited to contracts of an inter-governmental nature, contracts for agricultural commodities and raw materials, contracts with common carriers and public utilities, contracts not having a direct and immediate connection with the national defense, and to subcontracts thereunder. Partial mandatory exemptions are limited to subcontracts for new durable productive equipment. Permissive exemptions from renegotiation are solely within the discretion of the Renegotiation Board. The act specifically authorizes the board, in its discretion, to exempt certain described prime contracts and subcontracts, individually or by general classes or types. These embrace off-shore prime contracts and subcontracts, contracts where profits can be determined with reasonable certainty at the time the contract price is established, contracts with provisions sufficient to prevent excessive profits, and contracts and subcontracts of a secret nature.

A.G.C. Makes Recommendations

Soon after the Renegotiation Board commenced to function, representatives of The Associated General Contractors of America conferred with board members and staff representatives concerning the possible exemption from renegotiation of certain operations of general contractors. The exemptions recommended by the association included construction contracts for types of work regularly and usually carried on by government departments, contracts for such normal peacetime projects as public buildings, highways, flood control, rivers and harbors, reclamation, and other public works projects, contracts or subcontracts to be performed outside the territorial limits of the continental United States or in Alaska, as well as construction contracts awarded as a result of competitive bidding after public advertisement for projects having an immediate and direct connection with national defense.

The association also recommended that the board permit a contractor participating in joint ventures on contracts subject to renegotiation to offset against its profits from some ventures

Another reason why **BAKER** is the **BETTER** blade



Baker Blades are designed not only for peak flexibility, but for rigidity. With up to 12 inches of tilt available in five positions, the operator simply adjusts the frame at the trunnion brackets by shifting two pins. Also, adjustments are made on an arc movement which provide full bearing contact in all positions.

That's why owners and operators say Baker Blades will take a beating and stay solid—without developing "play" or shimmy.

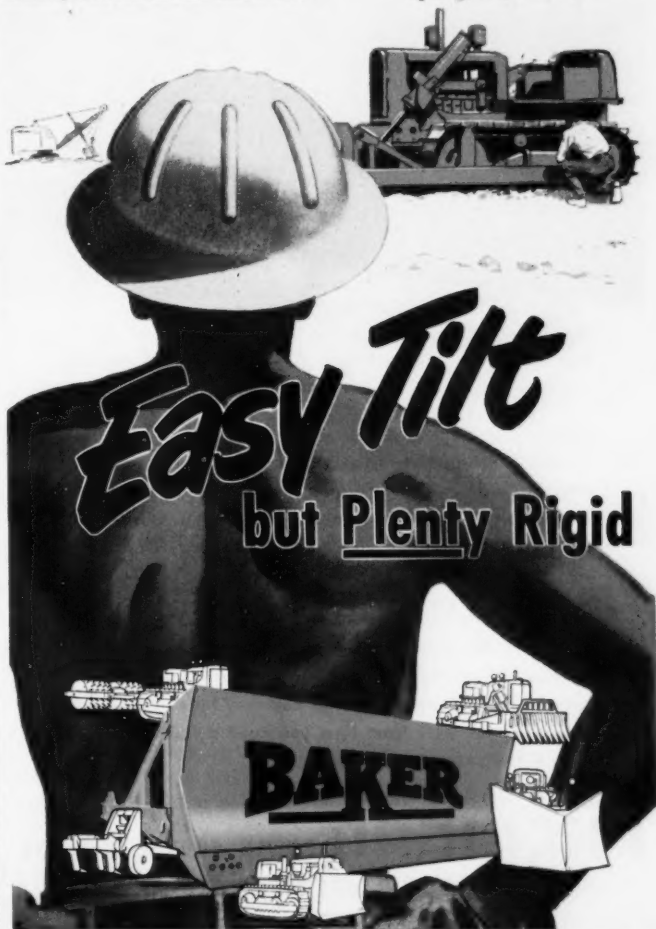
The complete line of Baker Bulldozers, Graders and Root

Rippers—all easily interchangeable, too—is manufactured exclusively for Allis-Chalmers Crawler Tractors. Three mountings are available: engine-mounted hydraulic, frame-mounted hydraulic (the revolutionary 9-X "No Push Beam" Dozer) and cable-controlled types.

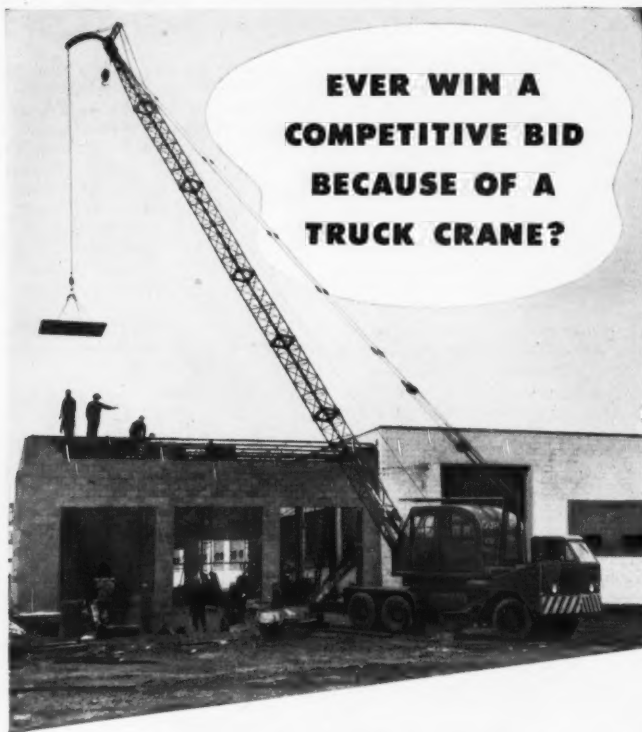


Call or write your Baker, A-C Dealer today—ask for proof why Baker is the better blade—dollar-wise—for you.

THE BAKER MANUFACTURING CO.
Springfield, Illinois



Baker—The most versatile line of tractor attachments



**EVER WIN A
COMPETITIVE BID
BECAUSE OF A
TRUCK CRANE?**

Here's one contractor who did! As an example of the advantages inherent in MICHIGAN Truck Cranes, Mr. Gurtzweiler of Henry Gurtzweiler, Inc., Toledo, cited a competitive-bid job.

Other contractors figured on the necessity of using a large crane with long boom to reach from outside a building being erected. Gurtzweiler, taking advantage of his MICHIGAN'S compact size and maneuverability, planned to work from a central point inside the building. Result? Henry Gurtzweiler, Inc. got the job . . . another of the many on which the MICHIGAN has given them a competitive advantage.

Moreover, Mr. Gurtzweiler states that although the truck crane is five years old and never has had an idle day, it is still in perfect condition and has had very little maintenance. Why settle for less? Next time you need a truck crane . . . get a MICHIGAN!

MICHIGAN POWER SHOVEL COMPANY

485 Second Street, Benton Harbor, Michigan, U. S. A.

its losses realized on other ventures. Lastly, the board was requested to permit a contractor the option of deciding whether its renegotiation should be on a completed contract or a percentage of completion basis.

Board Allows Exceptions

The Renegotiation Board's principal action to date on the foregoing recommendations is as follows:

1. Exempts all construction contracts entered into before July 1, 1950, except those of the Defense Department, the military services, Coast Guard, Atomic Energy Commission.
2. Exempts contracts of the Bureau of Public Roads and Public Buildings Service.
3. Exempts civil works contracts of the Corps of Engineers, except contracts entered into after June 30, 1950 for the construction of facilities directly or indirectly related to the generation or distribution of hydro-electric energy.
4. Exempts construction contracts for housing entered into prior to July 1, 1950 by the Canal Zone Government and the Panama Canal Company; all contracts of the Housing and Home Finance Agency except construction contracts entered into after June 30, 1950; and all contracts of the Bonneville Power Administration and Tennessee Valley Authority entered into before July 1, 1950.
5. Generally permits contractors to elect to be renegotiated on an over-all basis or on a completed contract basis.

Other Issues Doubtful

Off-shore work, competitive bid contracts, and joint ventures are still the subjects being discussed with board members and staff representatives. These matters are of extreme importance to every contractor, but to date the board has indicated little disposition to accept the recommendations made thereon by the association.

Off-Shore Work.—With reference to off-shore work, the board has been advised that most of this work is performed under cost-plus-a-fixed-fee contracts and that the fees are carefully determined by the government's contracting agencies. Under earlier renegotiation laws it was the practice to exempt this type of contract. The board, however, indicates little or no enthusiasm for a blanket exemption of this type. Thus, it appears that this work will be exempted only if it qualifies under the exemption provisions

(Continued on page 59)



The job moved fast in the construction of "200 East End" one of New York City's newest and most modern apartment houses.

ON SCHEDULE . . . WITHOUT OVERTIME . . . with **LEHIGH EARLY STRENGTH CEMENT**

Under the usual pressure for early occupancy, the contractor on this modern apartment set up a close operational schedule—one floor every five days. With competent management and Lehigh Early Strength Cement, the construction cycle was maintained steadily . . . without extra effort . . . without overtime.

Column and beam forms were stripped in 24 hours . . . arch forms, in 48 hours . . . saving half the usual form-material costs. What's more, cost of winter protection was reduced by 65% to 70%.

This is another of many cases that show how Lehigh Early Strength Cement can help you save time, cut costs and meet highest quality standards. Our Service Department will be glad to help you with your specific problems.

LEHIGH PORTLAND CEMENT COMPANY
ALLENTOWN, PA. • CHICAGO, ILL. • SPOKANE, WASH.



Pouring the roof slab. Concrete made with Lehigh Early Strength Cement.

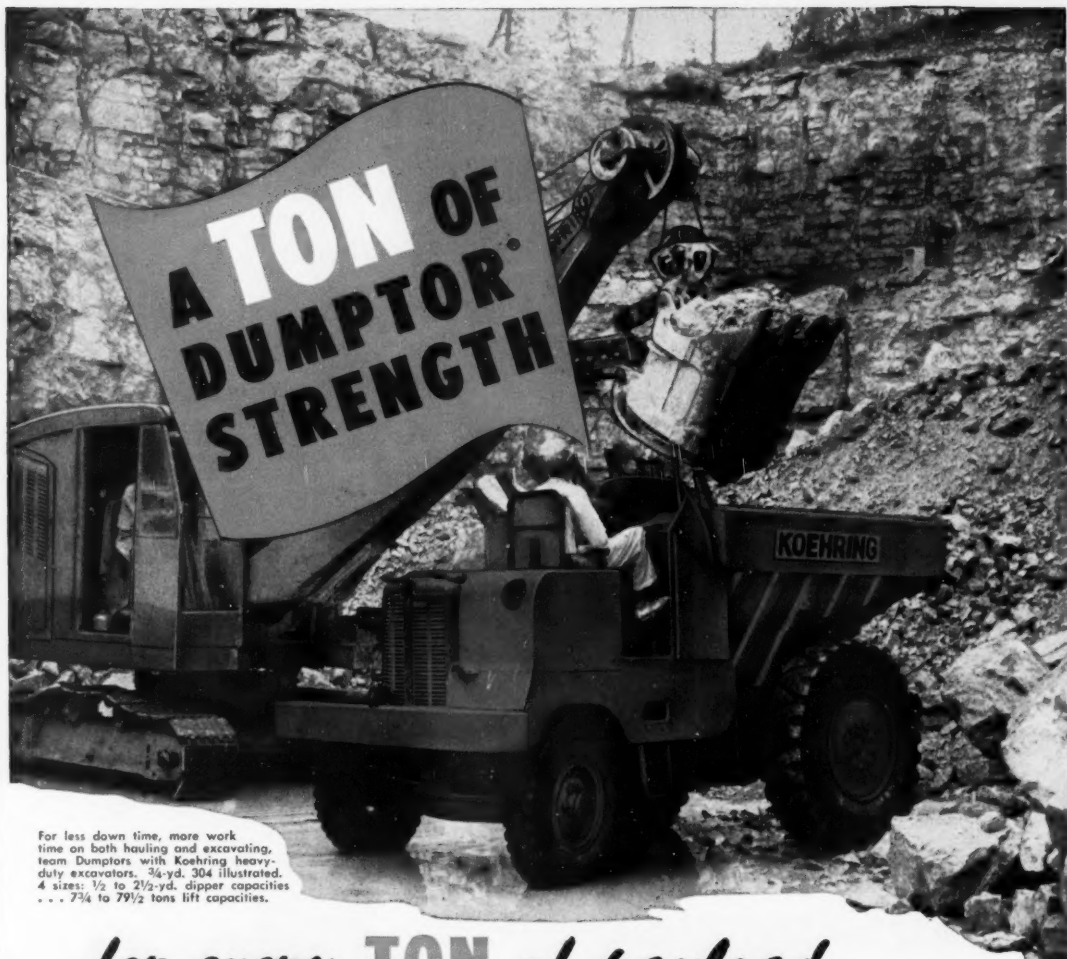
Owner—Builder
SOL ATLAS,

New York City.

Contractor:
BARNABY CONCRETE CORPORATION
New York City.

Ready Mixed Concrete:
N. RYAN COMPANY, INCORPORATED
Brooklyn, N. Y.





For less down time, more work time on both hauling and excavating, team Dumptors with Koehring heavy-duty excavators. $\frac{3}{4}$ -yd. 304 illustrated. 4 sizes: $\frac{1}{2}$ to $2\frac{1}{2}$ -yd. dipper capacities . . . $\frac{7}{8}$ to 7 $\frac{1}{2}$ tons lift capacities.

...for every **TON** of payload

Dumptors stand up under the severest shocks of shovel-loading $1\frac{1}{2}$ to $2\frac{1}{2}$ yards of rock at a pass because they're built extra tough for rock handling. There's more than a ton of net vehicle weight for every ton of payload.

All-welded body, sides, ends and bottom are heavily reinforced with 4" channel ribs. More than triple strength has been built into the bottom . . . seasoned $1\frac{1}{2}$ " oak timbers are securely bolted between two layers of 5/16" steel plate. Steel-oak-steel construction cushions shocks of rock loading. Free-swinging, kick-out pan

adds another tough 3/16" high-manganese steel plate for extra protection. Dumptor also has: rugged main frame, 8" ship-channels, heavily trussed . . . one-piece steel drive-axle housing and transmission case . . . 4" chrome steel drive axles . . . cast alloy steel "I" beam steering axle. All add extra strength to Dumptor chassis.

Heavy-duty construction like this assures you that Koehring 6-yard Dumptors will stand up under your toughest assignments . . . that there will be little down time with Dumptors on your job. For complete facts, see your Koehring distributor today.

CK122



KOEHRING DUMPTOR®

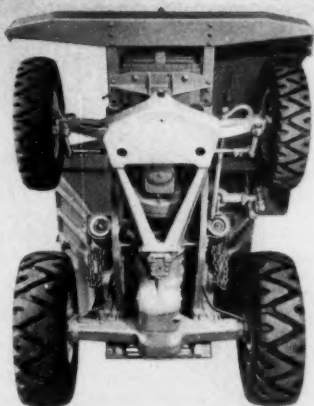
KOEHRING COMPANY, MILWAUKEE 16, WIS.

SUBSIDIARIES:

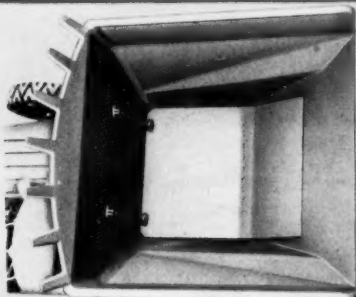
KWIK-MIX

PARSONS

JOHNSON



NO "SOFT SPOT" on Dumptor's underside . . . 1-piece, cast steel housing protects drive axle and enclosed chain drive. Wishbone supports the skid plate . . . shields the radius rod and the engine crank case . . . and supports the oscillating steering axle.



KICK-OUT PAN adds an extra 3/16" high-manganese steel plate on top of sturdy Dumptor bottom . . . breaks suction of sticky materials for fast, clean dump. Big 8' x 8' top gives easy-to-hit target for fast loading over the side or end . . . with less spillage.



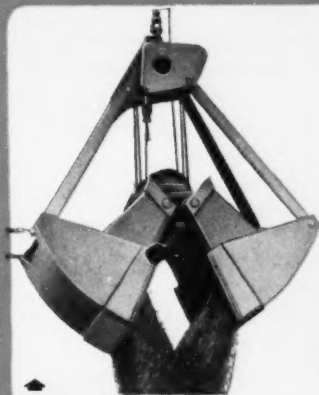
1-SECOND GRAVITY DUMP . . . no slow-acting body bolts . . . no body-bolt maintenance . . . plus same speeds forward and reverse for no-turn shuttle hauling keep production yardage high, costs low with Dumptors.



18½-FT.-PER-MIN. Parsons 215 Trenchliner®

For "mile-a-day" production on cross-country pipelines, Parsons 215 wheel-type Trenchliner has 30 digging feeds up to 18½-ft. per min. Equipped with square or round-bottom buckets, it digs 13 to 31 in. wide, up to 6-ft. deep. Other 215 advantages: "Tap-In" teeth; reversible, shiftable conveyor; standard tractor-type crawlers with 18" treads, lug-type shoes; standard make 55 h.p. diesel engine. Also check: wheel-type 202 for drainage and utility work; 3 ladder-types, full crawler mounted; and mobile, rubber-tired Trenchmobile®.

PARSONS Company, Newton, Iowa (Kochring Subsidiary)



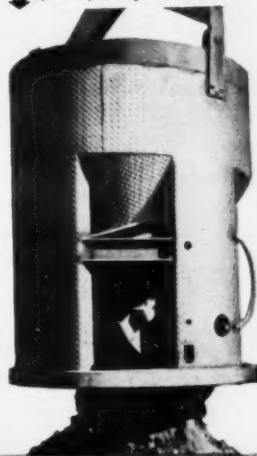
BIG PAYLOAD Clamshells

. . . Smooth inside and out, Johnson all-welded Clamshells dig, dump with less resistance. Manganese cutting edge, welded to heavy lips, toughens with use, assures big payload performance. In 10 sizes . . . from ¾ to 3 yards.

C. S. JOHNSON Co.,
Champaign, Ill. (Kochring Subsidiary)

LO-SLUMP Concrete Buckets

. . . 2 to 8-yd. sizes, with built-in vibrator, handle the stickiest concrete . . . have large controlled double-clam discharge gates, operated manually or by compressed air.



INTERNATIONAL STEEL *invites*

a look at the records

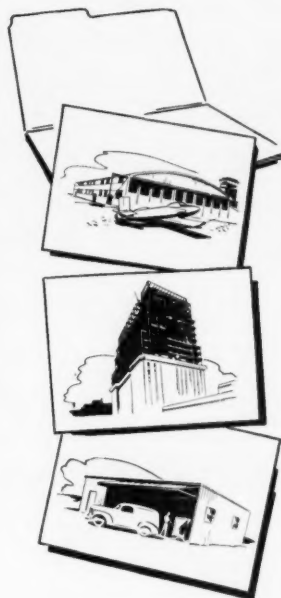


Soundest technical training . . . in every phase of engineering and fabrication of steel for construction . . . is an important "stock in trade" at International Steel.

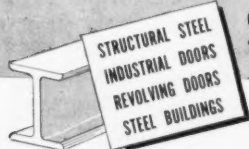
But International offers you another advantage, even more important to your steel building picture today. It's the long-acquired, broadly varied experience that's brought to bear on your individual fabrication problem. In International's completed-job files, you'd find names nationally famous in industry and business . . . record after record of widely diverse structural steel "puzzlers" taken right in stride.

This same, repeatedly demonstrated resourcefulness is yours to draw on, when planning any type of steel construction.

Let us tell you more about some of the many unusual jobs included in International Steel's records. Write to the Special Projects Director today.



INTERNATIONAL Steel Co.



1906 EDGAR STREET
EVANSVILLE 7, INDIANA

(Continued from page 54)

set forth in the regulations. These include certain prime contracts and subcontracts of limited amount placed with foreign nationals or foreign corporations, contracts whose provisions are sufficient to prevent excessive profits, contracts where refusal to grant exemption would jeopardize the secrecy required in the public interest, and contracts which the board does not consider it administratively feasible to renegotiate. The regulations point out that prime contractors and subcontractors who believe their contracts should be exempted should address their requests to the department entering into the prime contract. The department head, if satisfied that the contract should be exempted, will forward such request to the board for its decision.

Competitive Bid Contracts.—The association and others have stressed to board members and staff representatives that competitive bid contracts should be exempt, since competition between contractors will be sufficient to assure the government the lowest possible price and to prevent excessive profits. Where plans and specifications are sufficiently complete for competitive bidding after public advertising, it is felt that the interests of the government are fully protected. The earlier renegotiation laws during and after World War II specifically exempted competitive bid contracts. Here also, however, the board shows little enthusiasm for a blanket exemption. It is indicated that any exemption will be on an individual case basis and under such conditions as are set forth in the regulations. These would include, as heretofore stated, contracts where profits can be determined at the time the contract price is established, contracts with provisions sufficient to prevent excessive profits, and secret contracts and subcontracts.

Again, the contractor who believes his contract should be exempted should so advise the department entering into the contract involved and request that the departmental head concur and forward the request to the board.

Joint Ventures.—The subject of joint ventures has been discussed many times with board members, staff representatives, attorneys outside of government, and interested parties. The controversy stems from a ruling that joint ventures are separate entities and must be renegotiated as such. The same ruling was in effect during World War II, and caused hardship to a number of general contractors.

Familiar Scenes IN TUNNEL OPERATIONS



Ventilating
Lines
by **NAYLOR**

You see Naylor Pipe widely used in push-pull ventilating service because its exclusive structure gives it so many more performance advantages. Light weight makes it easier to handle and install. The Lockseam Spiralweld creates a reinforcing truss, assuring additional collapse strength and permitting use of lighter gauge material without sacrifice of performance. The larger the pipe diameter, the more this is true. Combined with the Naylor Wedge-Lock coupling, Naylor Pipe gives you a tight line that hugs the wall and can be coupled quickly with only one side of the pipe in the open. Re-use and high salvage value are also important features. It will pay you to get the complete story.

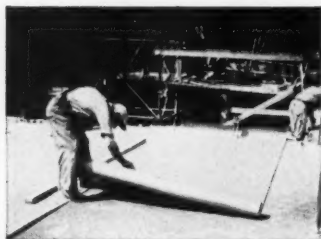
Write for Bulletins 507 and 514



Naylor Pipe Company
1280 E. 92nd St., Chicago 19, Ill.
New York Office:
350 Madison Ave., New York 17, N.Y.

SISALKRAFT

for "closing-in" and curing concrete at low cost



CLEAN, DUST-FREE FLOORS at reduced cost

IT'S STRONG: SISALKRAFT is so strong it furnishes positive protection from construction debris, and prevents marring and construction stains. Its strength makes it ideal for many "closing-in" operations, too.

IT'S LIGHT-WEIGHT: SISALKRAFT is so light and convenient to handle that it can be rolled into place easily and removed quickly. Can be re-rolled in most cases, and re-used many times over.

IT'S AUTOMATIC CURING: The SISALKRAFT Method of curing and protecting concrete is automatic . . . no watching, no sprinkling, no other covering required.

IT'S A "NATURAL" FOR YOU on single-story and multi-story jobs . . . also for curing and protecting driveways, sidewalks, foundations, roads and other concrete slab work or masonry.

Used on thousands of buildings, large and small, including world famous UNITED NATIONS Secretariat Building, MERCHANTISE MART and many others.

Write Dept. TC7
for free samples and data



THE SISALKRAFT CO.

305 West Wacker Drive, Chicago 6, Illinois
New York 17, N. Y. • San Francisco 3, Calif.

CONTRACTS • SPECIFICATIONS

In one case submitted to the board as an example, the contractor was a member in two joint ventures, the memberships of which otherwise differed. One joint venture lost money, the other earned a profit. In renegotiation, the contractor was found to have realized excessive profits in the profitable joint venture but was not allowed to offset his loss on the other joint venture. The board recognizes that this rule may continue to cause hardship to general contractors but is reluctant to amend its regulations to correct the situation. This is due in large part to serious legal doubts raised as to the meaning of "contractor" and "subcontractor" as used within the act. However, the board does recognize that joint ventures are peculiarly subject to risk of loss and will take this fact into consideration in determining whether or not a contractor's profits are excessive. This subject is still under discussion, and it is hoped that a more realistic and adequate solution will be found.

Renegotiation Factors

After a case has been assigned to a regional board and the contractor notified, the Standard Form of Contractor's Report will be reviewed by the regional board, and such meetings with the contractor as deemed necessary will be held. At these times the contractor is afforded an opportunity to discuss the evidence already filed, as well as other pertinent matters.

The principles and factors in determining excessive profits are set forth in the act and in the regulations promulgated by the board. The statutory factors include the efficiency of the contractor, reasonableness of costs and profits, capital employed, extent of risk assumed, the nature and extent of the contribution to the defense effort, character of the business, and such other factors as the board may adopt.

If past experience with the earlier renegotiation acts containing similar statutory factors is any criterion, they will be of doubtful value to the construction industry. This statement is meant not as a criticism but to point out that the operations of the general contractor are vastly different from operations in other industries. A general contractor's operation is a risk from the commencement of a project until it is completed. Indications are that the board is cognizant of the contractor's problems and that competent personnel familiar with the operations

of the construction industry will be employed. This should be very helpful to both the board and the contractor in determining excessive profits.

It should be noted that contractors are renegotiated on profits before federal taxes on income, a tax credit being allowed against the total excessive profits to be repaid or eliminated. This procedure of renegotiation before income taxes has been often criticized, but there is little chance of change.

Separate consideration will be given to cost-plus-a-fixed-fee contracts and other cost type contracts, as well as to fixed price and cost-plus-a-fixed-fee contracts containing incentive, escalator provisions or providing for revision of contract price during the life of the contract. Comparatives will be used in evaluating the contractor's performance. Because of the fact that in the construction industry no two operations are identical, it is difficult to see how comparatives can be used. Under certain circumstances, consideration will be given to profits and losses in prior years, but in the main, determinations of excessive profits will be based on the facts and circumstances of the year under review.

Space will not permit a detailed analysis of what costs are allocable to and allowable against renegotiable business. The criteria are fully set forth in the regulations, and they merit the attention of every contractor subject to renegotiation. Included are provisions relating to accounting methods, salaries, wages and other compensation, amortization and depreciation, losses, interest, selling and advertising expense, royalties, contributions, and state income taxes.

Conclusion

All general contractors with renegotiable contracts or subcontracts would be well advised to ascertain their obligations and rights under the Renegotiation Act of 1951 and the board's regulations and to comply fully with the procedural requirements.

The first step required of the contractor, and an important one, is the filing of the Standard Form of Contractor's Report. Whether a case will be assigned to a regional board for renegotiation will be determined by the board on the basis of this report. While cases of receipts in excess of the applicable statutory minimum will generally be assigned, no assignments will be made when the board can readily determine from such reports that no excessive profits have been

BOTH FIT THE SAME STEEL!



Switch as the ground changes...right on the job!

BECAUSE both Timken® multi-use bits and Timken carbide insert bits fit the same threaded drill steel, you can quickly switch to the most economical bit as the ground changes—and you can do it *right on the job!*

Use Timken multi-use bits for ordinary ground. With correct and controlled reconditioning, they'll give you the lowest cost per foot of hole when full increments of steel can be drilled.

Switch to Timken carbide insert bits for greatest economy when you hit hard or abrasive ground. They're your best bet for maximum speed drilling, constant-gauge holes, small diameter blast holes and very deep holes. With both types of Timken bits on hand, you'll have the answer to every drilling problem.

Timken carbide insert bits and multi-use bits are interchangeable in each thread series. And both types of Timken rock bits have these three important advantages: (1) made from electric furnace Timken fine alloy steel, (2) threads are not subject to drilling impact because of the special shoulder union developed by

the Timken Company, (3) quickly and easily changed.

Call upon the 20-years' experience of our Rock Bit Engineering Service for help in selecting the best bits for *your* job. Write The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".



Timken threaded
multi-use rock bit



Timken threaded carbide
insert rock bit

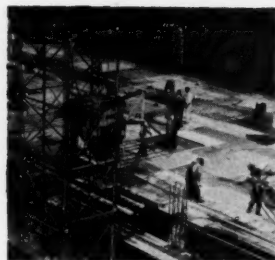
TIMKEN

TRADE MARK REG. U. S. PAT. OFF.

**your best bet for the best bit
... for every job**



clean, smooth beams and piers
of pre-stressed concrete



smooth
concrete
industrial
building
surfaces

to produce a clean,
smooth concrete finish
use

formfilm

THE PROTECTIVE COATING FOR PLYWOOD FORMS.



freedom from staining
on apartment project

All over America contractors report that Formfilm is the practical and economical answer for the protective coating of valuable plywood forms. Since it is easily applied and reapplied on the job, Formfilm has many advantages over any other protective finish for concrete forms.

Heavy scratches for instance, can be quickly recoated when Formfilm is used at the job.

Formfilm is now being widely used in "tilt-up" construction.

ADVANTAGES OF FORMFILM

Increases speed of form handling

Increases use of forms without recoating

Increases life of forms—no grain raising

Eliminates all disadvantages of oil or oil deposits on concrete

Cleaner, smoother surfaces at minimum rubbing cost.

HORN

A. C. HORN COMPANY, Inc. est. 1897

Manufacturers of materials for building maintenance and construction
LONG ISLAND CITY 1, N. Y. • Los Angeles • San Francisco • Houston
Chicago • Toronto SUBSIDIARY OF SUN CHEMICAL CORP.

A. C. HORN COMPANY, INC.,
Long Island City 1, N. Y.

Please send me ☐ complete data on
FORMFILM



☐ free copy of your
96-page Construction
Data Handbook



CT-2

NAME _____ TITLE _____

FIRM NAME _____

ADDRESS _____

CITY _____ STATE _____

realized. This being true, it would appear in the best interests of the contractor that the report contain as complete a statement of the operations as possible. A good beginning may contribute to a satisfactory ending, either by convincing the board that no assignment is necessary or, if assignment is to be made, by establishing the facts of the contractor's operations in a favorable manner.

If a contractor believes that a particular contract, even though defense connected and not presently exempt from renegotiation, should be exempted by the board as falling within its permissive exemptions, the contractor may consider addressing a request for exemption to the government department involved. If the department head agrees with the contractor, he may request the board to exempt the contract. The final decision rests with the board.

In any renegotiation hearing before a regional board, the contractor should make certain that his case is properly prepared and presented. The principles and factors in determining excessive profits, as set forth in the statute and the regulations, should be checked and evaluated in the light of the contractor's operations. The type of construction and the working conditions encountered should be fully explained. This will be of benefit to both the contractor and the renegotiation representatives and will do much to insure a well considered decision.

If a reasonable settlement cannot be reached with the regional board, there remains for the contractor the possibility that the board, on review of the proceedings, may disagree with the findings of the regional board and permit further meetings before the regional board or reassign the case to itself. The statute provides that the board may review any determination in any case not initially conducted by it, on its own motion or, in its discretion, at the request of any aggrieved contractor or subcontractor.

Finally, there exists the right of appeal to the Tax Court for a redetermination. The appeal before the court is treated not as a review of the board's determination but as a new proceeding. Although no appeal is provided beyond the Tax Court, it is believed that a thorough preparation and complete presentation of the contractor's or subcontractor's case under the foregoing procedures will afford a safeguard against an unreasonable determination of excessive profits.

Administration Salvages Some Controls in 11th-Hour Measure

» THE PRESIDENT on June 30 reluctantly signed the new controls law which was tacked together by conferees and passed by Congress in an unusual burst of speed to beat the June 30 deadline on the old Defense Production Act.

Despite the President's displeasure with Congressional disregard of such requests as a 2-year extension and strengthening of anti-inflation economic controls, the act salvaged a surprising number of the administration's controls in view of the earlier lambasting directed at the original bill by the House.

The act extends somewhat weakened wage and price controls until April 30, 1953, and rent controls until Sept. 30 in some areas and until April 30 in others. Allocations powers, defense production loans and other sections get full year's extension to June 30.

Briefly, here are the main provisions of the new law:

Prices—Controls are generally extended to April 30, but relaxed on some items, principally food and farm products. While not mandatory, the policy of Congress was declared as favoring termination of wage and price controls "as rapidly as possible."

OPS can not deny retailers or wholesalers of materials their pre-Korean customary percentage margins over costs or their "customary charges."

In effect, 90% of parity price support is guaranteed on 1953 crops of the six basic farm commodities.

Wages—Generally extended to April 30, but exempts from wage or salary control professional engineers, architects, public accountants, farm laborers, persons making \$1 or less an hour, and workers in firms employing eight or fewer persons unless the President within 30 days certifies that the stabilization program requires continued wage controls in the particular industry, business, occupation or area.

Calls for New WSB

The present Wage Stabilization Board could continue until July 29, but can not issue orders on individual pending cases. It is to be replaced with another tri-partite board with equal representation of labor, indus-

try and the public, and with all members confirmed by the Senate. The new board will have no power in settling labor disputes, serving only in an advisory capacity to the Economic Stabilizer on general policies and regulations for stabilizing wages and on the "interpretation or the application to particular circumstances" of the wage policies and regulations promulgated by the ESA.

Steel strike—The act "requests" the President to utilize the Taft-Hartley law to end the current steel strike.

Credit—Consumer credit controls and authority to continue a voluntary credit restraint program are ended.

However, real estate credit curbs are continued until April 30 with the provision that housing credit controls must be hinged to the current construction volume. Should the number of housing "starts" fall below a 1.2 million annual rate, the government could not require more than a 5% down payment on the transaction price.

The President must have estimates made of the rate on the basis of any three consecutive months. If, during such a period, the annual rate should fall below the 1.2 million units, he would have to announce the start of "a period of residential credit control relaxation," during which Regulation X could not require more than the 5% down payment.

Rent control—Is abolished on Sept. 30, 1952, in all but "critical" defense housing areas or where local governing bodies request continuation, in which case they would continue through April 30, 1953.

Allocations—Several provisions concern meat and meat products. Under the act, firms would be freed from any contractual liability if government control of materials prevent them or any of their suppliers or subcontractors from getting materials needed to fulfill their contracts.

The new act also extends life of the Small Defense Plants Administration for a full year, authorizes defense production loans for newsprint facilities, and gives business firms a chance to get court review of Labor Department minimum wage rulings under the Walsh-Healey Act.

House Passes \$2.2 Billion Bill For Military Construction

- Also Passes \$2.8 Billion Authorization for Public Works
- House Committee Urges AEC to Use Competitive Bids

» IN A LAST minute rush, the second session of the 82nd Congress pressed its largest appropriations through the mill to bring adjournment as early as possible this month.

Caught up in the swirling money stream are two measures providing for more than \$2 billion in defense construction.

So fast is the pace that the military construction appropriations were actually taken up by the House Appropriations Committee before the companion military public works authorization had been passed by the House. Authorizations are on a project basis and without a stated time limit. In the light of this fact, there hardly seems to have been any of the drastic cutting of expenditures that was promised earlier by Congressmen who threatened slashes as deep as 50%.

The House acted late last month to authorize \$2.8 billion for construction and equipment of Army, Navy and Air Force bases, only \$269 million less than the administration had requested. The House then appropriated \$2.2 billion for the giant construction program which includes the building of bases in foreign countries, thus providing actual cash for the major part of the building authorized.

Here is a breakdown of authorized military construction expenditures contained in H. R. 8120 as it passed the House:

Army—Inside the U. S., \$171.7 million; outside, \$68.6 million; classified, \$143 million, making a total of \$383.3 million.

Navy—Inside the U. S., \$164.5 million; outside, \$34.8 million; classified, \$86.4 million, making a total of \$285.6 million.

Air Force—Inside the U. S., \$844.2 million; outside, \$111.1 million; classified, \$1,133.9 million, making a total of \$2,089.3 million.

Construction funds contained in the omnibus supplemental appropriation bill, H. R. 8370, as passed by the House are: Army, \$600.1 million; Navy, \$386.4 million and Air Force, \$1,200 million.

Other construction funds included in H. R. 8370 are: \$80 million for the

Office of Education's school construction program; \$1,450 million for plant and equipment for the Atomic Energy Commission's expansion program; \$11.4 million for a hospital center in the District of Columbia; \$50 million for defense housing; \$4 million for Alaska housing and \$1.4 million for Alaska communications system construction.

The atomic energy plant expansion program is expected to cost about \$4 billion and to take "several" years to complete. The House report of the bill contains the following regarding this giant program:

"The committee has for the past three or four years urged the Atomic Energy Commission to use competitive bidding based upon plans and specifications. Although the commission and their predecessors have been in the construction business for approximately 10 years, the commission feels that it cannot work from plans and specifications. On this point, the committee disagrees. . . . The reason the committee is anxious for the commission to

work from plans and specifications is that it will save millions and millions of dollars (and everybody has agreed on that point), and the committee cannot see where this procedure loses any appreciable amount of time."

Funds for Civil Functions

Appropriations for rivers, harbors and flood control projects of the Army Corps of Engineers came much closer to the President's request of \$692 million when the Senate returned the bill, H. R. 7268, to the House after approving funds totaling \$667 million. Earlier the House slashed the administration's estimate by 28% when it passed \$492 million for the new year.

The Senate version would appropriate \$277 million for rivers and harbors projects and \$294.8 million for flood control projects. By far the larger portion of these amounts would be for construction expenditures.

The Senate also approved a fund of \$8 million for emergency flood control construction, \$62 million for Mississippi flood control and \$1 million for flood control on the Sacramento river. The Canal Zone government would get \$4.9 million for construction and equipment and \$3.5 million would go to the U. S. Soldiers' Home for maintenance, operation and the construction of quarters.

House, Senate Pass Interior Appropriation

- Bureau of Reclamation Would Get More in Senate Version

» RECLAMATION funds included in the Senate version of the Interior Department appropriation bill, H. R. 7176, total \$183.4 million for construction and rehabilitation of authorized projects.

Earlier the House approved the sum of \$153.4 million for the same purposes. Both versions include a 12% limitation on the funds which the Bureau of Reclamation can spend for construction by force account.

The Senate Appropriations Committee recommended the commencement of 10 new projects as follows: Central Valley project, Cal., \$1.3 million; Solano project, Cal., \$3 million; Minidoka project, Ida., \$150,000; Savage Rapids Dam, Oreg., \$700,000; Weber Basin project, Utah, \$1.4 million; Yakima project, Washington, \$1.5 million; and for the following divisions of the Missouri River Basin project: Cheyenne, \$1 million; Marias,

\$2.5 million; Missouri-Souris, \$2 million; and Solomon, \$1.5 million.

Other construction funds included in the measure as it passed the Senate on June 25 are: Southeastern Power Administration, \$115,000; Southwestern Power Administration, \$4.2 million; Bonneville Power Administration, \$66.5 million; Bureau of Land Management, \$2.8 million; Bureau of Indian Affairs, \$31.3 million; Bureau of Mines, \$3.6 million; National Park Service, \$19.6 million, and Fish and Wildlife Service, \$673,800.

For Alaska construction the bill would provide \$13.2 million for public works, \$17 million for roads and \$3.9 million for railroad construction.

Both House and Senate bills carry a 12% limitation on the force account expenditures of the Bonneville Power Administration and a 20% limitation on such road construction expenditures in Alaska.

AMSCO MANGANESE STEEL WELDMENTS

ADD NEW LIFE TO WORN EQUIPMENT

ROUNDS

SQUARES

FLATS

PLATE

crawler tread link pins

grouser bar

corrugated crusher roll

chain links

threaded shafts or pins

crusher roll

manganese crusher jaw

crusher mantle

dipper bucket

latch pin

manganese crusher or pulverizer hammer

manganese crusher jaw

snow plow shoe

dipper bucket

chain trough

hammermill hammer

digger teeth

dipper bucket heel plate

drag line bucket

dump truck body bed

chutes

ore car

ore scraper

loader bucket lip

dump truck body bed

wear-sharp repointers

repointer bars

grouser bars

dipper bucket

grouser bar

cast-to-shape repointers

AMSCO WELDING PRODUCTS

Amsco Welding Rods and Electrodes

For repair welding of manganese steel shapes to worn equipment, American Manganese Steel Electrodes retain their toughness and give real operating savings.

Amscoating with Amsco Hard-

facing Rods increases service life ... reduces shutdowns.

Contact your Amsco Distributor or write for illustrated catalog WA-77 on Amsco Manganese Steel Weldments and Hardfacing Selector Guide.

Brake Shoe

AMERICAN MANGANESE STEEL DIVISION

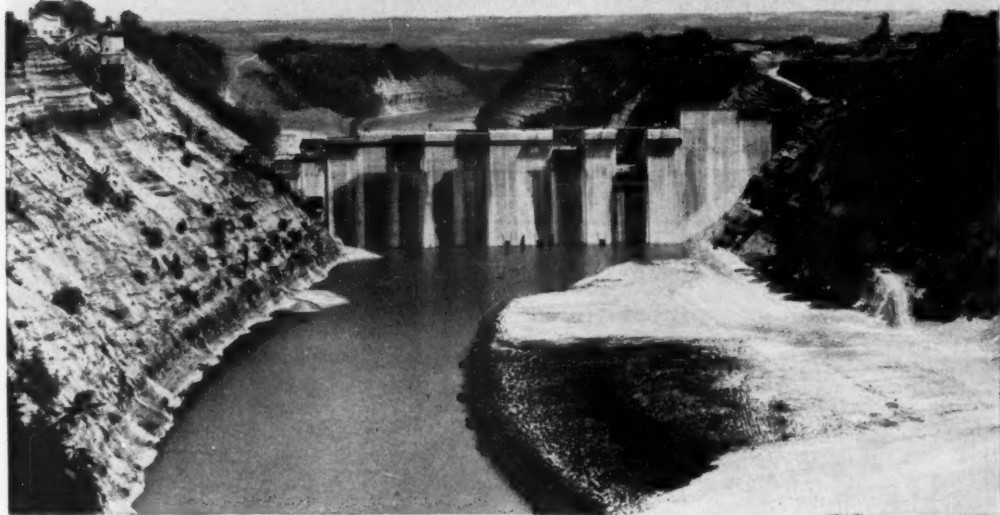
435 EAST 14TH STREET • CHICAGO HEIGHTS, ILL.

Other Plants: New Castle, Del., Denver, Oakland, Cal., Los Angeles, St. Louis. In Canada: Joliette Steel Division, Joliette, Que. Amsco Welding Products distributed in Canada by Canadian Liquid Air Co., Ltd.

GULF PRODUCTS *and* FINE SERVICE

keep equipment rolling
on Mt. Morris Dam Project

Mt. Morris Dam Builders, Inc., consisting of 5 leading contractors, has just completed the construction of the huge Mt. Morris Dam on the Genesee River near Mt. Morris, N. Y. One of the largest in the East, the new dam will impound the run-off from a watershed of 1077 sq. mi. Major items of work and materials included 670,000 cu. yds. of earth and rock excavation, 767,000 cu. yds. of concrete, 800,000 bbls. of cement, and 1500 tons of reinforcing steel.



THE Mt. Morris Dam is a big construction project. It's the kind of job on which contractors don't take chances with their equipment. They want smooth, dependable operation and the best insurance they can buy against costly mechanical delays.

That's why Mt. Morris Dam Builders, Inc. selected Gulf quality lubricants and fuels—on the basis of experience and reputation. And they have obtained the kind of lubrication and fuel performance required to complete this important project ahead of schedule.

Write, wire or phone your nearest Gulf office today and arrange to use Gulf quality lubricants and fuels on your next job. They are quickly available to you through 1400 warehouses in 31 states from Maine to New Mexico.



Seaway Project Stymied

There is still life but apparently little hope for legislation to bring the United States into a joint venture with Canada in the construction of the \$818 million St. Lawrence seaway and power project.

The Senate voted last month to return the bill to the Foreign Relations Committee which had previously reported it "without recommendation."

There will not be sufficient time in the current session to permit the committee's revision of the measure, S. J. Res. 27, and reconsideration by the Senate chamber.

A similar bill is snagged in the House Public Works Committee.

Though Congress has not actually killed action on the seaway project, its failure to act favorably on the measure during this session has almost the same effect, since Canadian officials have stated that they will proceed independently with the project in the spring of 1953.

The controversial measure which would connect the Atlantic to the Great Lakes, shunting a large portion of ocean cargo from the East Coast directly to the Middle West, has been supported by many presidents during this century but has continually failed to pass Congress.

"One of Nation's Worst Mistakes"

President Truman, in a final plea, claimed that refusal of the U. S. to join Canada in the construction of the project would be "one of the nation's worst economic mistakes."

He outlined a power plan for the country which would include "a north-east power pool, a southeast power pool, which is almost completed, a southwest power pool and, of course, we have a great one in the northwest and one developing in the middle of the country so that eventually we will have a power network that will give the country a balanced program fair to every section.

Following recommitment of S. J. Res. 27, Senator Moody (D., Mich.) introduced S. J. Res. 167 which would permit Great Lakes States to work out their own solution to the problem by forming compacts with Canada or any Canadian province. Such an agreement would require the sanction of the federal government, however. Governor Williams of Michigan urged the governors of eight states to support the proposal.



How to make a "triple play" ON SHEETING JOBS

When you use Armco Steel Sheeting, you get a three-way chance to cut costs and job time.

First, Armco Sheeting is easy to install. Its smooth metal surface and small displacement area aid penetration, make for quick driving. Corrugated metal design assures high, uniform strength and straightness. Armco Sheeting drives true with simple power equipment or hand mauls.

Second, on temporary installations Armco Sheeting can be reused many times, cutting unit costs with each use. A convenient hole near the top makes pulling easy. And being light in weight and nestable, it is simple as well as economical to haul, handle and store.

Third, both interlocking and flange type Armco Sheeting are available in a wide variety of gages. You select exactly what you need to get safe, efficient shoring at minimum cost.

The many advantages of Armco Steel Sheeting make it a valuable cost-cutting tool for trenches, cofferdams, foundations and other temporary or permanent installations. Write for complete information. Armco Drainage & Metal Products, Inc., 3602 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation.

ARMCO STEEL SHEETING



CONCRETE JOIST CONSTRUCTION

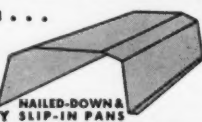


RENTAL and ERECTION
SERVICE

Gateway
PANS

Stocked in . . .

- CHICAGO
- NEW YORK
- BALTIMORE
- CINCINNATI
- KANSAS CITY

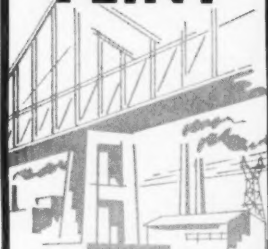


Ask for Catalog No. 3100

GATEWAY ERECTORS, INC.

3233 W. Grand Ave., Chicago 51, Illinois

FLINT



— STEEL —

for

- BUILDINGS
- BRIDGES
- TOWERS
- SUBSTATIONS
- ERECTION

FLINT STEEL

CORPORATION

P. O. Box 1289
TULSA, OKLAHOMA

LEGISLATION

President Signs Federal-Aid Highway Bill

» THE FEDERAL Highway Act of 1952 became law on June 25 when it was signed by President Truman and made available for highway development \$1.39 billion.

For the first time funds were authorized for the National System of Interstate Highways on the regular matching basis. The law, P. L. 418, includes \$25 million for this purpose.

The total of \$575 million authorized for annual federal-aid highways expenditure is again higher than the \$400 million requested by the President for annual expenditure. In 1950 the President's request was exceeded by \$120 million. Earlier this year the A.G.C. supported the recommendation of the American Association of State Highway Officials for \$810 million during each of fiscal years 1953 and 1954.

Where the House had passed \$12 million for the construction of defense access roads, the Senate acted to authorize \$50 million to be available until expended. Conferees settled this difference by agreeing to the \$50

million to be expended in two years.

For continuing the partially completed San Benito-Rama road in Nicaragua, the House approved an authorization of \$2 million for each 1953 and 1954 fiscal years. The Senate, in turn, rejected a provision of \$8 million for the completion of the project, to be available until expended. The final result was \$2 million per year for fiscal 1953 and 1954.

Though the House provision for the interchange of up to 25% of the funds authorized for the primary and secondary systems did not prevail, the act does carry the House provision allowing a state to call upon the funds authorized for a period of two years after fiscal 1954 thus actually extending the life of the act.

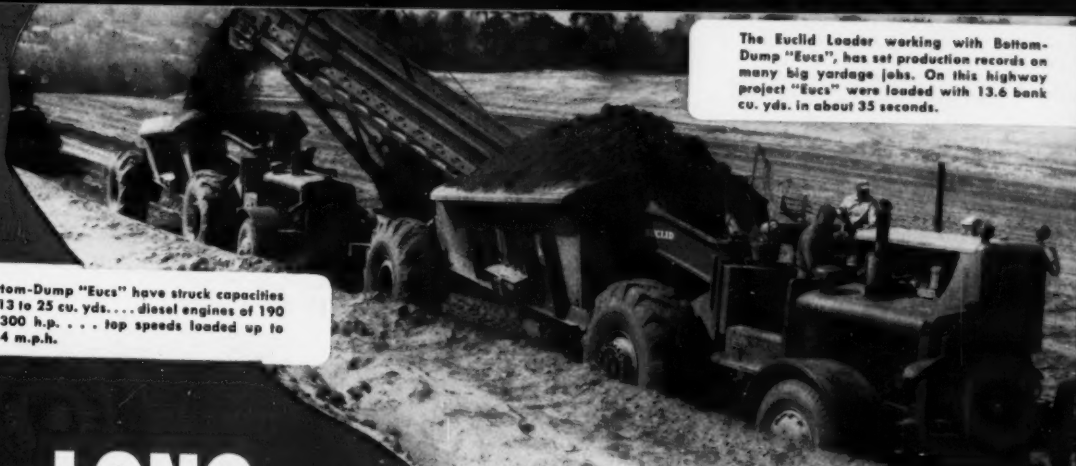
Though this election year is traditionally one for large economy moves by Congress, the Federal-aid Highway Act of 1952 is actually one of the most generous authorizations for the nation's road building ever passed.

Below is a table of funds included in the law:

Comparison of Current Funds With 1952 Act

Authorization for:	Yearly Amount Passed by Congress	1950 Authorization
Federal-aid Primary System . . .	\$247,500,000	\$225,000,000
Federal-aid Secondary System . .	165,000,000	150,000,000
Federal-aid for Urban Areas . . .	137,500,000	125,000,000
Nat'l System of Interstate Highways	25,000,000	0
TOTAL FEDERAL-AID . .	\$575,000,000	\$500,000,000
Forest Highways	\$ 22,500,000	\$ 20,000,000
Forest Roads and Trails	22,500,000	17,500,000
Park Service Roads	10,000,000	10,000,000
Parkways	10,000,000	13,000,000
Baltimore-Washington P'way Increase	1,500,000***	0
Indian Roads	10,000,000	6,000,000
Public Lands Roads	2,500,000	5,000,000
TOTAL	\$ 79,000,000	\$ 71,500,000
Emergency Fund	\$ 10,000,000**	\$ 5,000,000
Inter-American Highways	8,000,000	4,000,000
Defense Access Roads	50,000,000*	10,000,000
Highway Safety Conference . . .	150,000*	75,000
Rama Road, Nicaragua	2,000,000	0
TOTAL	\$ 70,150,000	\$ 19,075,000

* Total for two years ** Total amount *** Available until expended



The Euclid Loader working with Bottom-Dump "Eucs", has set production records on many big yardage jobs. On this highway project "Eucs" were loaded with 13.6 bank cu. yds. in about 35 seconds.

Bottom-Dump "Eucs" have truck capacities of 13 to 25 cu. yds.... diesel engines of 190 to 300 h.p. top speeds loaded up to 34.4 m.p.h.

LONG LIFE ON THE TOUGHEST JOBS



Rear-Dump Euclids range in capacity from 10 to 34 tons....top speeds loaded up to 36.3 m.p.h....diesel engines of 125 to 400 h.p.

● Proof that Euclids are engineered and built for long life performance in off-the-highway service is found in the record—of the thousands built, more than 9 out of 11 "Eucs" are still in use!

Engineered and built for lasting strength, Euclids are job proved for continuous operation, less down time and lower maintenance costs on a wide range of construction, mining and quarry work.

Ask your Euclid Distributor about the Euclid features that mean more loads per hour at more profit per load—large capacity, power and traction for steep grades, and speed on the haul road.

Put "Eucs" on the job
and be on more jobs!

The EUCLID ROAD MACHINERY Co., Cleveland 17, Ohio

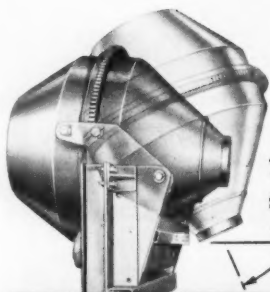
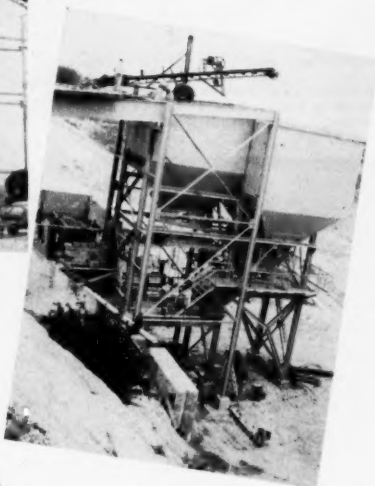
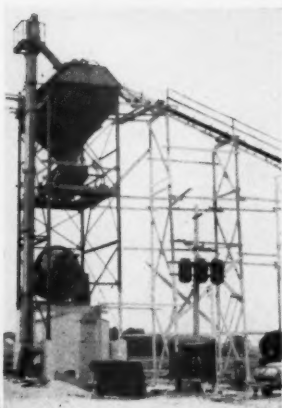


EUCLIDS



Move the Earth





CLEAN UP with

TILT-UP

FOR CONVERTING TO CENTRAL MIX

As it requires less headroom, the TILT-UP SuPREMIXER is the only mixer feasible in most plants. It's easy to install, no raising of the plant or lowering of drive.

FOR A PACKAGE PLANT

Reduced headroom requirement means reduced height, construction and power costs. Efficiently permits dry batch in one lane, central mix in the other.

FOR A SEMI-PORTABLE PLANT

Crane feeding is easy with SuPREMIX. Separate A-frame mounting with bin structures bolted for quick, easy set up provide real flexibility for your rush defense jobs.

Only the SuPREMIX TILT-UP, 3-3½ yard hydraulically controlled mixer can give you all these advantages: lower headroom requirements—steeper discharge of 65°—no segregation—reduced thrust—and virtually fixed discharge. The hydraulic system is part of the unit—no costly compressor to buy. The unique features of this mixer make it the ideal mixer...

- » Aggregate Bins
- » Cement Bins
- » Cement Storage
- » Elevators
- » Conveyors

Ready Mix Plants • Expressway Semi-Portable Plants • Dry Batch Plants • SuPREMIX

Manufactured and Distributed by

L. BURMEISTER

Milwaukee 14

Wisconsin

» HISTORY is being made in a three-county area near Asheboro, N.C., where a road-building contest is now going on that may influence the spending of hundreds of millions of dollars in federal and state highway funds for years to come.

Because of its national importance, highway contractors throughout the country, as well as state and federal government road officials, are watching the competition with intense interest.

The engagement is between private contractors and the North Carolina Highway Commission to see which can build roads cheaper and better.

Hearings End on Naming of Subcontractors—37

The private contractors are working on the projects under the familiar contract method; the state forces are using the force account method.

The referee in the contest is the Bureau of Public Roads.

Asheboro, N.C., the center of the Sixth Highway Division, was chosen as the scene for the competition because it has been the focal point of encroachment of state force account work on the contract method.

Bid Prices Above State Guess

In all, 15 jobs are involved. Eight will be let to private contractors on the basis of low bids, and seven will be done by the state's forces. All 15 projects will have the same specifications and the projects, ranging in size from 5 to 12 mi., cover grading, drainage, base, and bituminous surfacing.

So far, seven projects have been let: three to the state and four to private contractors. Low bids by private contractors have been running approximately \$18,000 a mile, while the state's forces estimates run about \$12,000 a mile.

The controversy in North Carolina between the State Highway Commission and private contractors began three years ago, soon after North Carolina voters approved a \$200 million bond issue to pave some 12,000 mi. of secondary roads. The bond issue was sponsored by nearly all of the state's private road-builders.

Bought \$5 Million in Equipment

However, soon after the bond issue was passed, the state spent \$5 million of the bond money for road-building equipment and promptly started

Traditional Contract Method Challenged in North Carolina

- Similar Jobs by Contractors, State Under Way
- Federal Engineers to Compare Costs, Quality
- "Slipshod" Force Account Work Already Noted

By Eugene Miller, Correspondent

building roads with its own equipment, working force and engineers.

In the past, private contractors did about 80% of the state's secondary road work, and state forces did about 20%. But under the new program, sponsored by North Carolina's Governor W. Kerr Scott and his highway commissioners, state forces began doing the lion's share of the work.

State officials contended that they could do the work cheaper, faster, and better than private contractors. This statement was hotly disputed by the Carolinas Branch, The Associated General Contractors of America, and others who were quick to point out that the state's forces did slipshod work on many of their jobs and rarely met the specifications for the project required of private contractors. They also pointed out that the state did not include items in its cost estimates which were included in

the project cost figures set up by private contractors.

Bond Money Nearly Gone

Despite the protests, the state went blithely on its way using up most of the \$200 million in road funds, with the state forces doing the major share of the work. As of Dec. 31, 1951, \$126,594,077 of the bond funds had been spent, with the state forces doing 57.1% of the work, and private contractors 42.9%. By the end of this year, all the bond money will be spent or allocated.

The most flagrant example of state forces doing road work occurred in the Sixth Division which has its headquarters at Asheboro. There, George Coble, the highway commissioner for the division, had state's forces do 73.7% of the work in the division and private contractors only 26.3%.

In that same division, not one bond issue grading project has been



Don Truell, government engineer, checks work of a piece of equipment owned by the North Carolina Highway Commission which is working on a job in Chatham County, N. C. This job, consisting of grading and placing of asphalt on 5.33 miles of road, was given to the state's forces. The state estimated it could do the job for \$66,729, as against the low contractor's bid of \$127,288. Mr. Truell is one of some 20 Bureau of Public Roads Engineers checking the North Carolina jobs.

awarded or advertised for contractors' bid.

Federal Jobs Brought Climax

The controversy between the state and private contractors came to a head when Coble asked the U. S. Bureau of Public Roads if he could do 15 federal-aid projects in his division with state's forces.

After a bitterly contested fight, the bureau authorized the state highway commission to construct seven of these projects by the force account method, and to award eight to private contractors on the basis of the lowest bids submitted. The state was asked to submit estimates on all 15 projects and contractors were asked to bid on all 15, so that the BPR would have an idea of the price differences.

20 BPR Engineers Checking

To check work of both the private contractors and the state's forces, the BPR has sent some 20 highly trained engineers into the Sixth Division. These engineers are headed by Edward C. Granley of Washington, BPR production cost engineer. This is the first time since the Alaska highway was built 10 years ago that the government has made such a close check on road-building costs.

The federal engineers operate on a unit basis, calibrating every cubic foot of earth moved, grades and asphalt used, determining exactly how

long each machine is operated, and if it is stopped, why. They even have meters that look like weather instruments on every piece of heavy machinery, which tell just how much the equipment has been operated.

The operation of each piece of machinery is timed and recorded by these engineers, usually working in teams of two.

When they are through and their reams of figures submitted to the BPR, the bureau will sift through the mass of information and determine whether private contractors are better and more economical than the state. The findings may have a nationwide effect upon road-building.

Chapter Employs Engineer, Too

H. B. Morris of Winston-Salem, a construction engineer with the State Highway Commission for 26 years, is guarding the interests of the Carolinas Branch, A.G.C., in the road-building project. So is S. C. Austin, manager of the highway and heavy division of the branch, who makes frequent trips to the road-building sites. Austin, for 29 years a member of the State Highway Commission, can usually spot at a glance shortcomings in the work being done by the state's forces.

Some of the cost figures which usually don't show up in the state's estimates of job cost will be included

by the BPR engineers and cost-evaluation men.

Among items which the state never includes in its cost estimates and which contractor must figure in as costs are such things as licenses, gasoline taxes, sales tax, excise tax, insurance bonds, tax on tires, compensation insurance, depreciation, office costs, and retirement and pension funds for employees.

"Poor" State Work Showing Up

Already, evidence of poor work by the state's forces is beginning to show up. An impartial observer, a Greensboro, N.C., newspaperman, after inspecting one of the state's road-building projects near Asheboro, noted that grades are not being taken out to specifications; corrugated metal pipe which was taken out of the roadway and which was supposed to be salvaged for re-use, has been torn and broken by the working forces; timber and forage has been strewn alongside the roadway instead of being cut and stacked neatly as required by the specifications; and timber and brush has not been cut away back to the 5-ft. strip required by specifications.

Carolinas A.G.C. officials who have visited the state projects feel sure that if the BPR keeps a close check over the jobs and includes in its cost analysis of state's work items of ex-

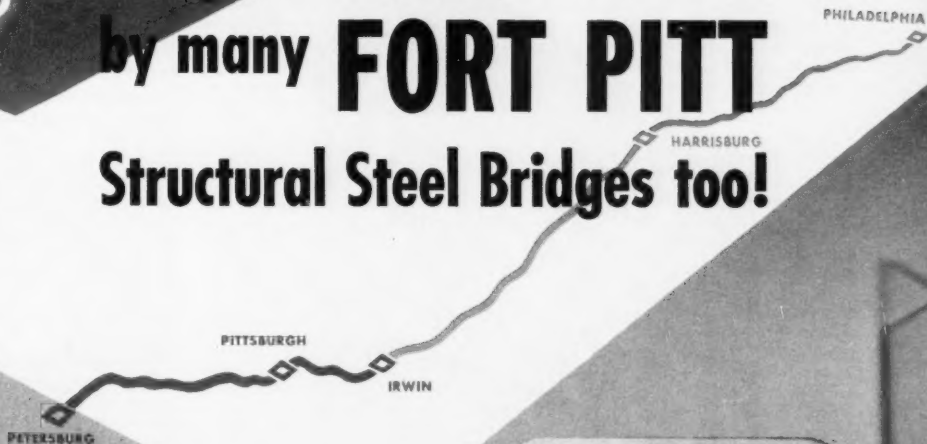
(Continued on page 75)



Left—S. C. Austin (right), manager of the highway and heavy division of the Carolinas Branch, A.G.C., is shown looking over the shoulder of Woodrow Hoffman, an engineer with BPR who is checking a grading job on N. C. 49, 18 miles southwest of Asheboro, which is being done by J. K. Cecil & Son, Lexington, N. C., an A.G.C. firm. Note two stop watches on Hoffman's clip board by which he checks the scraper's operation. Special timing instruments are mounted on all pieces of heavy equipment. Right—Edwin C. Granley (left), Washington, D. C., is production cost engineer with BPR in charge of securing cost data on the 15 projects. With him is H. B. Morris, Winston-Salem, N. C. engineer retained by the Carolinas Branch to check on the jobs.

Lake Erie

Pennsylvania's Western Turnpike Extension is served by many **FORT PITT** Structural Steel Bridges too!



FORT PITT BRIDGES

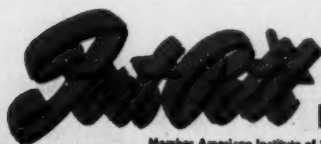
play an important role in Pennsylvania's 487 million Eastern Turnpike Extension

Why steel is the solution for this big highway project... (text continues)

Steel

From one end of Pennsylvania's famous Turnpike to the other—Fort Pitt Steel Bridges have played an important role. Steel Bridges, because of their excellent service records, are the logical choice of experienced highway engineers everywhere.

"There's no substitute for Structural Steel"



BRIDGE WORKS

Member American Institute of Steel Construction

General Offices, Pittsburgh, Pa. • Plant at Canonsburg, Pa.

District Offices:

NEW YORK, NEW YORK

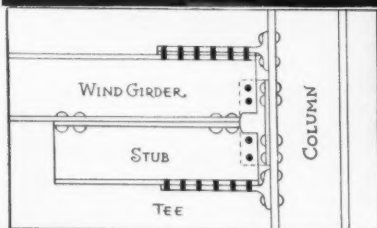
CLEVELAND, OHIO

DETROIT, MICHIGAN



**"Steel Permits Streamlining Construction with
Safety, Endurance and Economy"**

Tower of Glass on Park Avenue



Owner: Lever Brothers Company, New York;
Architects: Skidmore, Owings & Merrill, New
York; Structural Engineers: Weiskopf & Parrish,
New York; General Contractor: George A. Fuller
Co., New York; Steel Fabricator and Erector:
Bethlehem Steel Company, Bethlehem, Pa.

This 24-story office building in New York City is called Lever House. It is owned by Lever Brothers Company, and occupies a 200-ft x 200-ft plot, including the entire blockfront between East Fifty-third and East Fifty-fourth Streets, on Park Avenue.

Lever House strikes a note of freshness and originality through its imaginative use of blue-tinted heat-absorbing glass, and the illusion it creates of not having a street floor. At the street level the structure has an open patio under the main portion of the building. The slender 53-ft-wide tower helps the illusion at this point because its base is sheathed for one story in plate glass. At the center of the block the patio is open to the sky, and will eventually contain a garden and pool.

The second floor of this distinctive new building covers the entire block, around an open court. Its third floor is enclosed in glass from floor to ceiling, and contains an employees' cafeteria, facing on a terrace. There is also a basement garage for 55 cars.

All the tower floors have approximately 6000 sq ft of office space, with most floors having private offices along the south wall. The total floor and roof area is 274,000 sq ft.

Lever House is fully air-conditioned. It has fluorescent troffer lighting, acoustical ceilings, cellular steel floors, continuous fixed windows, and blue curtain wall spandrels of wired glass.

Fabrication and erection of the 3542-ton steel frame for Lever House was handled by Bethlehem.

SPECIAL WIND BRACKETS—The tower of Lever House is so narrow, in relation to its height, that unusually heavy wind connections are required to carry the wind load to the foundations. As indicated in the accompanying sketch, this is accomplished by means of beam stubs and tees.

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

FABRICATED STEEL CONSTRUCTION



(Continued from page 72)
pense which contractors have and the state does not list, and also takes into account the quality of work and conformance to specifications, there is little doubt that private contractors' work will be found cheaper and better.

Industry Won in 1933 Comparison

Actually, North Carolina contractors can remember back to 1933 when the BPR ran a comparison on a nation-wide basis between work done by private contractors and state's forces. The report was based on information from 53 different projects in 46 states and one territory, totaling 244 mi. and representing various types of construction.

In the report of C. N. Connor of the BPR in 1934, the conclusion was: "The total cost of construction by the force-account method was \$3,942,879, an increase of \$593,126 or 18% above the total of bid prices of \$3,349,753."

A chart submitted with the report showed that some of the jobs constructed by day labor methods cost 85% more than contractors' bid prices. And the project constructed in North Carolina cost 80% more and required 180% more time to build than was bid by the contractor.

Of 53 projects checked, only 4 exceeded the contractor's bid prices by 80% and North Carolina was one of the 4.

In his conclusion, Mr. Connor stated: "As a result of the co-operative investigations, it is believed that one of the principal advantages of the contract system over the day labor method has its inception in the self

interest that is characteristic of human nature.

"Employed supervision, not having a monetary interest, does not have the same incentive as a contractor who enjoys the financial rewards and to whom losses are a personal penalty. He is spurred by the knowledge that he must maintain efficiency or be forced out of business."

Contracts "More Economical"

"The test made by the Bureau of Public Roads to determine the relative economy and efficiency of highway construction by contract and by day labor, shows that construction by contract is more economical and more efficient than when done by day labor under the supervision of public agencies."

Nello Teer, Jr., vice-president of Nello L. Teer Company of Durham, N. C., puts his finger on it this way: "It is also apparent to any experienced observer that the work being done by the state's (North Carolina) forces is being performed in a haphazard, lackadaisical manner, with no regard for specifications. Projects are in most instances never dressed up or cleaned up to the degree required of the contractors."

Industry Source of Revenue

Discussing the possibility that the state's assuming of the road-building work may be a step toward socialism, Teer added: "However, those persons who through intentional efforts or by reason of their lack of foresight would create a socialized state, are overlooking one all-important factor: that the highway contracting industry, like all other industries, pays taxes on its earn-

ings and profits and also pays many other taxes measured by different yardsticks.

"The industry is the source of a substantial sum of revenue that enables the state government to stay in business. If the state government destroys private industry, then the government will kill the goose that lays the golden egg."

Projects Getting Under Way

Projects under way are:

1. Surfacing of the Rock Hill Store road between Bennett and Carpenter in Chatham County, N. C., running 5.3 mi. and costing \$69,377. Work being done by the state; to be completed in 110 working days.

2. Surfacing of 7.6 mi. between Ramseur and Malecton in Randolph County, costing \$91,979. Work being done by the state in 140 working days.

3. Surfacing of 11.4 mi. between Gulf and Wake's Chapel in Lee County for \$150,555. Work being done by contractor in 170 working days.

4. Surfacing of 8.8 mi. of the High Rock road in Davidson County for \$160,594; work being done by J. K. Cecil and Sons of Lexington, N. C., and to be done in 175 working days.

Dickerson, Inc., of Monroe, N. C., and Roy M. Homewood of Chapel Hill, N. C., are working on projects 5 and 6 and state forces are working project 7. The other eight projects are expected to be awarded later. All costs are borne equally by the state and federal government, except in cases where the state forces spend more than what the state had estimated for the job. In those cases, the federal government will only pay one-half of the estimated cost.



Shown above is corrugated metal pipe which was supposed to have been salvaged by the state's forces working on the Chatham County project. Instead, it was torn up by the construction crew. BPR engineers will take this into account when figuring the costs of the job.



S. C. Austin is shown here pointing to a grade where state's forces failed to take out cut slope from bottom of the ditch to conform to a typical section.

Contract Highway Maintenance Gaining Favor in Many States

- New Hampshire "Sold" on Resurfacing by Contract
- A.G.C. Chapter Cooperates with Road Department

» THE RESURFACING of New Hampshire highways with asphalt and peastone by the contract method has proved very satisfactory, according to Acting Commissioner John O. Morton, of the New Hampshire Public Works and Highways Department.

To encourage bidding on such projects, about 50 miles of road are included in one proposal. Bids are submitted on a unit price basis for the 5 major items involved, maintenance of traffic, asphalt cut-back for pre-treating stone, aggregate for seal coat, asphalt for seal coat, and aggregate for cover coat.

The program of asphalt and stone resurfacing was instituted under Commissioner Frank D. Merrill, and has been continued by Acting Commissioner Morton. Preliminary engineering costs are kept to a minimum by indicating the approximate location of projects on printed maps included with the specifications furnished prospective bidders. In the field, yellow paint is used to mark highways, showing only the start and termination of sections to be resurfaced.

Contractors Complimented on Work

The Highway Users' Spokesman, Stinson L. Taylor, states that the increased use of the contract method for construction and maintenance of New Hampshire highways over the past 3 years has proved that contract construction has several advantages over other methods. In commenting on the resurfacing program directly, he stated that highway planners have assurance that existing highway investments can be protected from 5 to 8 years by this method.

Taylor complimented the contractors for their excellent performance on resurfacing projects, and said that the improved riding qualities of highways as a result of stone and asphalt resurfacing created the impression in the minds of some taxpayers that new highways had been constructed.

A.G.C. Cooperates with Department

Frank W. Whitcomb, president of The Associated General Contractors

Growing Interest in Contracts

New Hampshire joins a number of states which have been expanding their maintenance-by-contract operations. Kentucky recently enlarged its program (January CONSTRUCTOR), and Utah and Idaho are considering large programs.

To make most effective use of this method, work must be awarded in sufficiently large amounts to attract contractors and lower prices, specifications should emphasize results rather than methods, and freedom should be permitted in use of equipment. Calling for bids early in the year to permit completion in one season also is helpful.

Maintenance being let to contract by various states includes resurfacing of existing pavements, pavement patching, gravel surfacing, retread operations, spreading of abrasives in winter, widening of existing pavements, grading shoulders, cutting side ditches, cleaning and re-sealing of joints, void-filling with asphalt and mud-jacking, replacing guard rails, snow removal, and painting of bridges, guard rails and center stripes.

of New Hampshire, pointed out that as a result of cooperation between the New Hampshire Public Works and Highway Department and The A.G.C., a maximum portion of all New Hampshire public building and highway maintenance and construction is handled under the contract method. President Whitcomb's firm, F. W. Whitcomb Construction Corp., was low bidder on two peastone resurfacing contracts this year. Other successful low bidders were Landers & Griffin Co., A.G.C., and Manchester Sand, Gravel & Cement Company, A.G.C.

Faced with the maintenance of 3,700 miles of New Hampshire highways in addition to an ambitious reconstruction program, the New Hampshire Public Works and Highways Department first attempted maintenance by contract in a limited way in 1950. By July 1, 1952 over 500 miles of highway resurfacing will have been completed by the contract method.

Resurfacing Method Described

First step in the resurfacing is pre-treatment of the $\frac{5}{8}$ " aggregate at the rate of 1.5 gallons of treated MC-O per ton of aggregate, and the treated stone is then stock-piled at strategic locations along the project. From 0.20 to 0.25 gallons of asphalt cut-back per sq. yd., grade RC-3 or RC-4, depending on temperature and weather conditions, are applied to the existing road surface with an approved type pressure distributor. Application of the asphalt is made in stretches 500 to 1,500

(Continued on page 79)



N.H.P.W. & Hwy. Dept. photo

Above is shown stone being pre-treated at the plant of Arthur Whitcomb, A.G.C., Keene, prior to use in the New Hampshire maintenance program.

NOW all the **HOT PATCH** material
you want..any type..any quantity
where and when
you want it



**for ALL maintenance
and small paving jobs**

the NEED

In the face of ever heavier traffic loads, rising costs and lack of funds greatly limit new construction and place an ever greater burden on maintenance programs in city, town, county and state. For this work even the best patch is none too good. Yet until the advent of the new Mixall, an efficient and economical means of producing all types of hot high quality patch material has not been available.

is ANSWERED

A small, highly portable unit, capable of on-the-spot production of even the highest types of hot mixes comparable to those produced in Barber-Greene's largest continuous hot mix plant—that is the Mixall. Its range of usefulness extends throughout the field of road maintenance into small paving and resurfacing jobs.

In the Mixall, Barber-Greene offers a unique and effective combination of an efficient rotary drum aggregate dryer with a proved B-G twin shaft heated pugmill mixer. It is rightly called the Mixall because of all the things it can do . . .

- ... **Mix all quantities:** from a single 300 lb. batch up to 5 tons per hour of hot mix—or up to 10 tons per hour of cold patch.
- ... **Mix in all locations:** towed to the job by truck loaded with aggregate . . . fed directly from truck or from stock pile or pit. Can work in a single traffic lane. No set-up time required.
- ... **Mix in all weather:** heated aggregate makes low atmospheric temperature mixing possible—allows quick repair to prevent major failures.
- ... **Mix all types:** of bituminous materials including stabilized mixes—as well as low slump Portland cement mixes.

BARBER-GREENE COMPANY, AURORA, ILLINOIS, U.S.A.

Barber-Greene

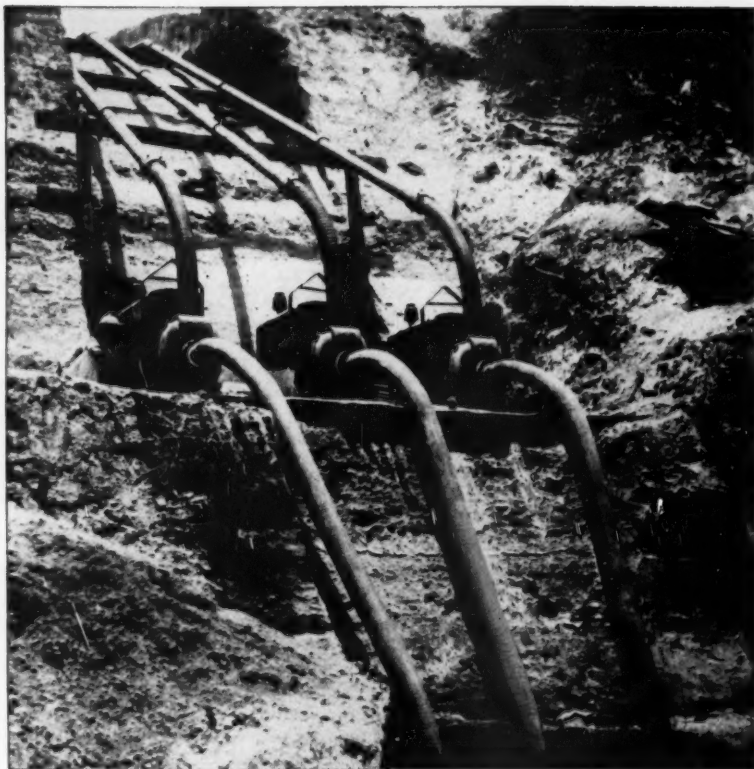
Send me the descriptive 8-page bulletin on the Mixall.

Name

Firm Name

Address

City..... State.....



Taking it on the chin—without grunting or groaning. Here are Barnes Pumps working a really tough job in South America. With overhaul shops hundreds of miles from the job, the contractor had to have pumps that would stay on the job without "time out" for repairs. That's where Barnes Pumps outshine all others.

BARNES "33,000 FOR 1" PUMPS NOT ONLY "TAKE IT" BUT KEEP DISHING IT OUT ON THE TOUGH JOBS!



Got a tough pumping job? Give it to Barnes Automatic Centrifugals and watch 'em walk off with the load! Watch them "put out" day in and day out—year after year. Watch them pump 33,000 gallons of water on each gallon of gas! Watch how they stand up without overhaul! Then you will see why Barnes Self Primers are first in the minds of construction men who want the best in pumps.

The Barnes Line is complete—with capacities ranging from 4,000 to 90,000 G. P. H.—with choice of either Electric, Diesel, Gasoline, or Pulley Drive.

BUY THE BEST • • • BUY BARNES



(Continued from page 76)
ft. long at a time, depending on the temperature. The pre-treated stone is distributed on the asphalt surface with a force feed spreader at the rate of 25 pounds per square yard, and the stone is then broomed by hand where necessary, and dragged with

an approved steel brush until the aggregate is spread uniformly over the asphalt surface.

After rolling with a three-wheeled or tandem type roller, a fog spray of bituminous material is applied at the rate of 0.15 gallons per square yard. Three-eighths inch aggregate is ap-

plied as a cover coat, and after dragging, the surface is rolled until thoroughly bonded and compacted.

Officers Furnished at Unit Price

In order to keep traffic moving during the resurfacing, Engineer Ruel Webb has restricted the contractors'



Left above—Applying asphalt to existing road surface. Right—Applying treated stone with forced feed spreader. *E. Harold Young photos*



Left above—Dragging with steel brush and broomed where necessary. Note asphalt supply in background. Right—Rolling with 2-axle and 3-axle rollers.



Left above—Application of mist coat. In left background are Loren Ross, resident engineer, and "Andy" Donovan, project superintendent for Manchester Sand, Gravel and Cement Co. Right—State's pilot car permits continuous traffic flow.

activities to one lane at a time. As a further aid to motorists, Highway Department Engineer Webb has pressed into service a "pilot car" with the appropriate words "follow this car, do not pass," painted on the back of the vehicle which guides autoists through projects under way.

Uniformed officers are used at each end of the project, and the contractor is reimbursed on a unit price basis for this item in the contract. Uniformed officers are included in all New Hampshire highway contracts on a unit price basis as a result of suggestions made by the A.G.C. of New Hampshire.

Although the cost per mile of this asphalt-stone resurfacing program is slightly over \$2,000, it provides a surface which is very economical on an annual cost basis in comparison with other resurfacing methods. It permits the New Hampshire Highway Department to preserve existing roads during its reconstruction program without heavy annual maintenance expense.

State "Sold" on Contract Method

Construction Engineer Robert Whitaker pointed out that the labor cost is a small portion of the total resurfacing cost, and the principal expense is the stone and asphalt. Whitaker says his department is sold on the contract method for this type of resurfacing program after observing how contractors have handled projects in the past few years. He feels that stone and asphalt resurfacing involves difficult problems of control and organization with which successful highway contractors are familiar.

Contract Method Advantages

The advantages to the public of the construction of public works by the contract method can be summarized as follows:

1. Guaranteed cost of the project known before construction starts.
2. Guaranteed quality in accordance with plans and specifications.
3. Completion on schedule.
4. Lowest possible cost secured through free and open competition.
5. A project planned to fit the needs most effectively.
6. Centralized responsibility for the construction.
7. Construction through the normal channels of the construction industry.

Municipal Construction by Contract

City Discovers Contract Method Is Cheaper

• Providence, R. I. Drops Force Account on Water Mains

The following (except box) is reprinted from the Providence EVENING BULLETIN. The story it tells is one which might well apply to other cities which have been performing construction by force account.—Ed.

"In spite of increased costs, the Water Supply Board today is installing new water mains at costs as much as 35.5% less than in 1950.

"Why?

"Because for the last year the board has put all new installation work out to competitive bid by private contractors instead of maintaining crews of its own.

"During the year bids have been received on seven contracts for laying 116,000 ft. of water pipe in 347 streets in Providence, Cranston, North Providence and Johnston.

"Compare the average per-foot cost of this work against the price on identical work for the fiscal year ended Sept. 30, 1950, when the board handled such installations itself:

	Current	1950
Six-inch mains.....	\$3.07	\$4.76
Eight-inch mains.....	\$4.03	\$5.95

"All figures include overhead expenses.

"Whence the saving?"

Private Crews "More Efficient"

"The explanation by Philip J. Holton, Jr., the board's chief engineer, shows several probable sources.

"First of all, it would seem that privately employed crews are more efficient because even the 1950 costs exclusive of overhead and lost time were \$3.44 for six-inch and \$4.30 for eight-inch.

"The rest of the difference—38.5% of the cost—slipped away in lost time, which alone accounted for 20 weeks of paid absence from the job sites per man per year, and overhead.

"Of that lost time, seven weeks per man went for rainy weather when the crews could not work outside, but nevertheless stayed on the payroll because they had full-time jobs.

"Private contractors, while offering higher wage scales, do not work—or pay—their men in foul weather."

Payroll Headaches Described

"Two weeks went for annual vaca-

(Continued on page 83)

Mayor Walter H. Reynolds was Finance Director of Providence for several years prior to his recent election as mayor. In his inaugural address early this year, he stated to the City Council, in part:



Mayor Reynolds

"While our budget presentation compares favorably with similar documents in most other cities, it nevertheless does not convey the detailed information which your function as the appropriate body really requires ... when

the budget document is submitted for your examination too much of the material is summarized in terms of lump sum appropriations and too little is told in terms of promised work performance. I desire to coordinate the fiscal duties of the council and the chief executive as a closely-knit cooperative team and to accomplish such a purpose ...

"As a necessary corollary to this proposed development, I am anxious to see established in the public works department a practical and informative system of cost accounting. The public works department recently has been reorganized and our next step should be to see that this progress is translated into lower unit costs and better planning of our scheduled expenditures.

"When we are in possession of all the facts concerning unit costs, appropriation estimates can be computed with reasonable accuracy, and we will be in a position to compare our costs with those which the city is required to pay on contract operations and we will have before us constantly a comparative measurement standard by which we may appraise the over-all efficiency of the department. I believe the potentialities of such a system will prove to be of immeasurable benefit to the city ..."

Trinity White

THE WHITEST WHITE CEMENT




Use Trinity white—the *whitest* white portland cement. It gives extra eye-appeal to . . . architectural concrete units . . . stucco . . . terrazzo . . . cement paint.

Trinity has many special uses because of its beauty and light-reflective properties. Trinity white is a true portland cement that meets all Federal and ASTM specifications.

General Portland Cement Co., 111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles; 305 Morgan St., Tampa; Volunteer Bldg., Chattanooga.

a true portland cement

As white  as snow
... plain or waterproofed

The same reliable source



Remember . . . the Fire Association of Philadelphia has been writing Fire Insurance for more than 135 years. In fact, policies are still in force on 100-year-old buildings which were first written when the buildings were constructed.

Now, the Fire Association-Reliance Companies have entered the Contractor's Bond field. And today many of the nation's leading building and road contractors are enjoying the many advantages offered by these established and reliable companies in meeting all their bonding requirements.

Consider these advantages in getting *your* bonds through a Fire Association or Reliance Agent.

1. The use of our preferred rates is very much to your advantage in preparing your bids.

2. Our service facilities guarantee greatest speed in delivery of bid and performance bonds.
3. The qualifying power of the Fire Association-Reliance Companies enables us to handle bonds in very substantial amounts.

Contact your Fire Association-Reliance Agent now. He's a good man to see about your Property and Casualty Insurance, too. If you don't know his name, write us direct and we'll be glad to put you in touch.

* * *

Head Offices: 401 Walnut St., Philadelphia 6, Penna.
Branches in Atlanta, Chicago, Dallas, New York, San Francisco, Toronto. Claims and Settling Agents throughout the world.



Symbols of Security

Fire Association Reliance

INSURANCE COMPANIES OF PHILADELPHIA

*Property and Casualty Insurance
Surety Bonds*

CONTRACT METHOD

(Continued from page 80)

tions and two more for the paid holidays in the course of a year for the city crews.

"And the biggest loss of all—nine weeks per man—went into travel time between the boards headquarters where the men reported daily and the various job sites.

"On private contract jobs, the workmen report directly to the site and their day starts at that time.

"Added to all this, the city has now established a paid sick leave plan which probably would have added even more to the city crews' cost, Holton pointed out.

"Furthermore, the 1950 costs do not include the high wage scales for laborers and equipment operators which figure in the current installation prices."

Permits Cut in Crews

"Aside from the financial gains, Holton explained that the switch to private firms allowed a reduction of 65 men in his work crew and left the remaining force free to carry out maintenance work that was needed but never before could be done.

"Outstanding in this category is the assignment of a crew to all major highway jobs to replace the old type hydrants with the now-preferred post hydrants and to test and replace if necessary all gate valves while the roadbed is open.

"The change brought another black entry in the ledger—this one for \$8237 last December—when the board sold to the highest bidders five pieces of heavy construction equipment that it no longer needed.

"Holton said the idea of switching to contractors first developed after Mayor Reynolds' inaugural speech in January 1951, when he proposed a cost accounting system for the public works department.

"In that talk, the mayor said that with such a set-up, 'we will be in a position to compare our costs with those which the city is required to pay on contract operations, and we will have before us constantly a comparative measurement standard by which we may appraise the over-all efficiency of the department.'"

Force Account Loses in Comparison

"The water board already had a complete cost accounting system and, taking a cue from the mayor, compared its figures with the prices being paid for main installations by private firms

The Name **HOPE'S** Guarantees

Lok'd Bar FACTORY SASH

The strongest factory sash you can buy. "Lok'd Bar" design gives greater strength for its weight of metal. Stouter construction increases resistance to wear, tear and corrosion. Saving in upkeep cost, trouble-free operation and saving in heat losses more than return its small added cost to the owner.

The bulb tee makes the strongest vertical sash bar.

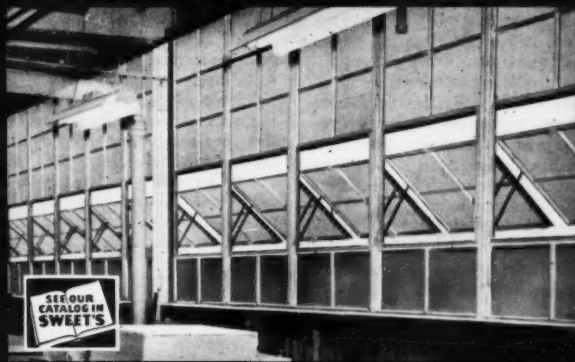
The flat tee muntin totally replaces the steel pierced from the upright—making "Lok'd Bar" the strongest sash joint.

Broad, double contacts on accurate surfaces abolish drafts, save heat. Weathering flanges have no raked-on strips to corrode and break loose.

Corners solid-welded, each ventilator frame and casement reinforces the sash, withstands wind and shock for the life of the building.

Engineers like "Lok'd Bar's" extra safety in window walls. Builders find labor savings in installation. Look into Hope's "Lok'd Bar" sash for every good industrial building. Hope's Engineering Department will assist you with detail of window design and installation. Ask for this help!

Projected ventilator, balanced on strong steel arms with brass guides held in true position. (Pivoted ventilators are balanced on solid bronze cup pivots.)



"Lok'd Bar" means the world's finest factory sash. Ask for Catalog 103L

HOPE'S WINDOWS, INC., Jamestown, N. Y.

The Finest Buildings throughout the World are Fitted with Hope's Windows

HOW TO HANDLE WET JOBS

#6 of a Series

ROCKAWAY SEWAGE TREATMENT WORKS

Contractor: Merritt-Chapman & Scott
Pumping: Wellpoint Dewatering Corp.



NO BRACING—SUBGRADE 31 FT BELOW JAMAICA BAY

Location was Rockaway Peninsula, sandwiched between Jamaica Bay and the Atlantic Ocean. Ground water had to be lowered to a maximum depth of 31 ft. Wellpoint Dewatering Corp., a Griffin associate, was employed to handle the intensive pumping problem.

Griffin Wellpoints took the job in stride and pumped 6 million gallons per day, round-the-clock for 9 months, to drain the entire 2-block-long project. Because of limited working space, steel piling was required in the lower portion of the deep excavation. Contractor desired to eliminate cumbersome cross-bracing; Griffin engineers planned wellpoints so that hydrostatic pressure was considered zero in piling design. Steel sheet piling was cantilevered with a penetration of 15 ft below subgrade.

• Result: Absolutely no cross-bracing—unobstructed working area—job completed ahead of schedule. For "quick-dry"...specify...Griffin.

GRIFFIN

WELLPOINT CORP.

881 East 141st Street, New York 54, N. Y.
Hammond, Ind. Houston, Tex. Jacksonville, Fla.

In Canada: Construction Equipment Co., Ltd.
Toronto Montreal Halifax

CONTRACT METHOD

in Warwick and Tiverton, Holton said.

"By comparison, the city fared badly.

"Hence, the change, and on Mar. 5, 1951, the first contract was put to bid. Twelve firms plunged into the stiff competition, offering prices that ranged from a low of \$18,119 to \$42,929.

"Since that time the main installation contracts all have drawn keen interest among many firms with each job bringing from three to eight offers and usually at close competitive rates.

"All in all, Holton said, 'the success of this program has been very gratifying.'"

Separate Contracts Attacked

A leader of the Canadian construction industry last month defended the general contract method against "the alleged merits" of awarding separate contracts in his country.

Robert Drummond, of Toronto, past president of the Canadian Construction Association, told the annual convention of a group of master plumbers and heating contractors "that there is today a greater acceptance throughout the industry of the fact that the centralization of responsibility, control and coordination on construction projects will result in their completion in the minimum time and at the lowest cost."

This principle was adopted at this year's C.C.A. convention by representatives of general contractors, subcontractors and suppliers, Mr. Drummond said.

"Some of you may be in favor of the ultimate coordination of an entire project under a general contractor, but advocate that tenders (bids) be called separately for certain trades in order to protect your prices and later have them included in the general contract."

"Separate Contracts No Solution"

"In my opinion such a compromise procedure does not offer a satisfactory solution. It can be argued as to whether bid peddling originates from the side of the general contractor or that of the trade contractors, but one thing is certain: It takes both sides to make a deal."

A simple "remedy" to the problem lies in the hands of the trade contractors, he told the group. If the

HOW TO HANDLE WET JOBS

#7 of a series

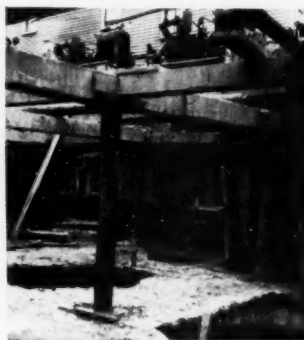
ADDITION TO TELEPHONE BUILDING

Newport News, Va.

Contractor: Wise Contracting Co.



BOTTOM VERY UNSTABLE. Open pumping caused sheeting to collapse. View shows job shut down after second attempt to sheet hole.



WITH WELLPOINTS. Job is bone-dry, bottom firm and stable—Griffin Wellpoint system (see pumps, top of photo) holding ground water 3 ft below subgrade.

TIGHT FINE SAND with silty clay binder . . . precarious jetting conditions . . . "pinched-in" working space . . . these were only some of the problems. Griffin skills solved them all, speedily and economically.

GRIFFIN

WELLPOINT CORP.

881 East 141st Street, New York 54, N. Y.
Hammond, Ind. Houston, Tex. Jacksonville, Fla.

In Canada: Construction Equipment Co., Ltd.
Toronto Montreal Halifax

Excavation

Hercules Gasoline and Diesel engines play an important part in many construction jobs. Right from the very beginning — Hercules powered equipment clears the ground. Then Hercules powered shovels and earth moving equipment excavates for the foundation. Trucks, bulldozers and tractor shovels used in moving the dirt are also Hercules powered.

Transportation

Even the roads and streets, over which the building equipment and material is transported, are constructed, traveled and maintained by Hercules powered equipment. Industrial locomotives —fork-lift trucks—logging equipment, and other Hercules powered machinery handle and process construction materials for use by contractors.

Construction

Hercules powered cranes, cement mixers and pavers also play an important part in the construction industry.

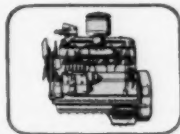
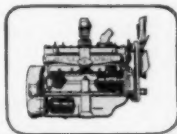
For dependable power and economical operation of construction equipment—specify Hercules engines and power units—built by Engine Specialists Since 1915.



by Hercules Engines



Engine Specialists Since 1915



HERCULES MOTORS CORPORATION Canton, O., U.S.A.

GAS • GASOLINE • DIESEL — ENGINES and POWER UNITS

Progress... Behind

our healthy growth for 40 years is our constant aim "to handle all insurance matters

the way the policyholder-

owner wants them handled." Specifically,

we provide: ① Sound counsel on kind and amount of coverage; ② Expert accident-reduction service; ③ Swift, sympathetic claim settlement; ④ Time- and money-saving cooperation on "paper-work" detail...Results: Unexcelled service



The Employers Mutuals Team

and, often, lower insurance costs!

EMPLOYERS MUTUALS of WAUSAU

Home Office: Wausau, Wisconsin

Offices in principal cities...Consult your telephone directory

Employers Mutuals write: Workmen's Compensation-Public Liability-Automobile-Group Health and Accident-Burglary-Plate Glass-Fidelity Bonds-and other casualty insurance. Fire-Extended Coverage-Inland Marine-and allied lines. All policies are nonassessable.

EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY



CONTRACT METHOD

trade contractors don't like the methods of a certain general contractor, then they should not quote him a price, or one as low as they quote other contractors, he suggested. If this is kept up, "he won't stay in business very long."

"If you submit tenders on a separate contract basis you have absolutely no influence in connection with the selection of the general contractor," he warned the convention.

"You may have to work with a firm whose relative inefficiency will cost your company money through job delays, poor coordination and so on. Under the general contract system, however, you certainly have discretionary powers."

Mr. Drummond pointed out to the convention that plumbing and heating contractors in their daily activities are strong advocates of the general contract system.

"The vast majority of you are really general contractors yourselves in the mechanical field. While you may tender (bid) on sprinklers, pumps, pipe-covering, sheet metal work, air-conditioning and ventilation, vacuum and temperature control systems, boilers and other related work, in most cases you do not carry out all this work with your own forces.

"On the other hand, in order that the work in your part of construction operations may be properly coordinated, you are inclined to discourage the awarding of any of this work to subcontractors by anyone other than yourselves."

"Must Work Together"

"We may have our differences but we all have to work together and this work, for all its difficulties and frustrations, is a satisfying privilege of pooling our resources, skills and ingenuity together to participate in intimate fashion with the development of this great piece of real estate called Canada.

"To me, and I am sure to you also, this fact constitutes one of the principal thrills of being a contractor. The role of the construction companies of being, in the physical sense, the "builders of Canada", is relatively larger and more important than ever before. This year the industry will carry out a record program with a gross value of over \$3.5 billion—greater than that performed by those engaged in agriculture, forestry or, by a large margin, mining."



DURAPLASTIC* scores another touchdown in Texas stadium

THE REFEREE is W. F. Swigert of Swigert Construction Company, Waco, Texas, contractor for Baylor University's huge new stadium. His verdict: "We are well pleased with the performance of Duraplastic in any type of construction."

Mr. Swigert says his firm has used Atlas Duraplastic air-entraining portland cement for years because "Duraplastic-made concrete is more workable, and there is less segregation of aggregates."

Important points! Duraplastic also minimizes water-gain, generally improves surface appearance, fortifies the finished concrete against the effects of freezing-thawing weather... and in paving, resists the scaling action of de-icing salts.

YET DURAPLASTIC COSTS NO MORE

It sells at the same price as regular cement and requires no unusual changes in procedure. Complies with ASTM and Federal Specifications. For descriptive booklet, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Ave., New York 17, N.Y.



NOTE UNIFORM SURFACE appearance of concrete in close-up of this stadium job. With Duraplastic, less mixing water is needed for a given slump. The mix is more plastic and more uniform; aids proper placement.

OFFICES:

Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company



DURAPLASTIC

AIR-ENTRAINING PORTLAND CEMENT



Makes Better Concrete at No Extra Cost

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—September to June

WORTHINGTON CORPORATION

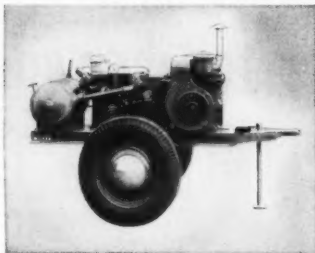
CONSTRUCTION EQUIPMENT DIVISION

PLAINFIELD, NEW JERSEY

Branch Offices and Distributors in all Principal Cities

You can speed your work while cutting costs with these **BLUE BRUTE** Portable Compressors, Air Tools and Pumps

More action for your money! That's what you want from your portable equipment—and these Worthington Blue Brutes are designed to do it. For more information on any of these seasoned workers, write to our Plainfield office, specifying bulletin numbers, or call on your local Worthington Blue Brute Distributor right away.



Portable Air Compressors

Whether you choose the compact 30 cubic footer or the newest and largest 600 cubic-foot unit, you get the same quality design and construction that has gone into Worthington construction equipment for over 50 years. Every Blue Brute compressor assures you lowest possible fuel consumption and cooler, more economical delivery of air. Among the features that make it possible are the

famous Worthington Feather* Valve, two-stage air cooling, sealed crankcase, unit assembly, heavy-duty engine, formed steel all-welded frame, and "Fuel Saver Control". Gasoline-engine powered units from 30 to 315 cu ft capacity. Diesel-driven units from 105 to 600 cu ft. 2 and 4 wheel (steel or pneumatic); skid; truck or rail-car mounted. Write for Bulletin H-850-B74.

*Reg. U. S. Pat. Off.

Portable Air Tools

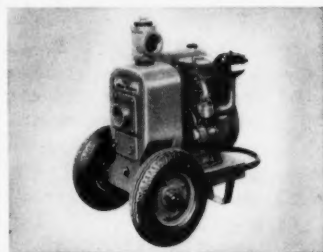
Backfill tampers, paving breakers, hand-held rock drills, sheeting drivers, clay spades, trench diggers and tie tampers. Each Blue Brute tool is designed and built with a dual aim: *greatest power and stamina with unusual smoothness of operation.* Construction workers everywhere know that Blue Brute means *less tiring work* for them. The Worthington Blue Brute line of air tools is complete—for heaviest or lightest duties. For all the facts, write for information: Bulletin H-1200-B38 on rock drills, Bulletin H-1200-B39 on backfill tampers, Bulletin H-1200-B40 on paving breakers and sheeting drivers, Bulletin H-1200-B37 on clay spades and trench diggers.



Wagon Drills



Users on all kinds of jobs... in all parts of the country... will testify to the versatility and smooth performance of Blue Brute Wagon Drills. Compare a Blue Brute's design and construction features with those of any other wagon drill and you're bound to conclude that this is the one for you. Can drill a toe-hole 2 ft. below grade. Uses less air. Stays on the job longer. 3- and 3½-inch drifters also available. Write for complete details in Bulletin H-1200-B36A.



Portable Self-Priming Pumps

Here's a full line of lightweight, gasoline-engine-driven centrifugal pumps. Fabricated, all-steel construction provides unusual toughness. Inbuilt self-priming can't go wrong—no jets, valves, recirculating ports. Long life and minimum maintenance expense with double-acting shaft seal, renewable, reversible impeller wear plates. Write for Bulletin W-2010-B2D.

Worthington Corporation, Construction Equipment Division, Plainfield, N. J.

H-27

WORTHINGTON



Construction Equipment

WORTHINGTON CORPORATION

CONSTRUCTION EQUIPMENT DIVISION

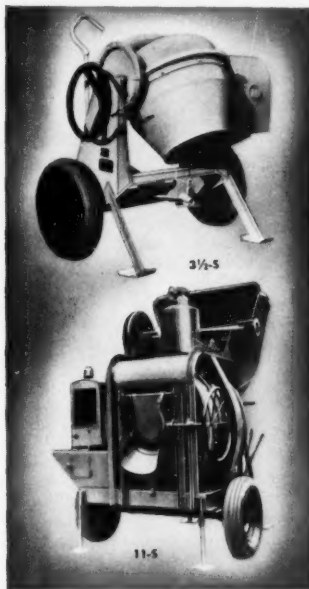
PLAINFIELD, NEW JERSEY

Branch Offices and Distributors in all Principal Cities

BLUE BRUTE Portable Concrete Mixers, Stationary Mixers, Truck Mixers, Pavers and Pneumatic Placers

The equipment that is breaking all records for speed and quality

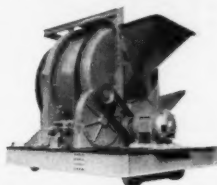
Spend less time on every job! What contractor isn't constantly trying to improve overall on-the-job efficiency in order to do this? The Blue Brute equipment on this page has been designed and built to help you do this. For more information on any one of these equipment lines, write to our Plainfield, N. J., office, specifying bulletin numbers, or call on your local Blue Brute distributor soon.



Portable Concrete Mixers

The Blue Brute line of portable concrete mixers is as complete as you'll find anywhere. Behind each design is over 100 years of concrete-mixer experience that assures you of a fast uniform mixing action that's unsurpassed anywhere.

Get all the facts on the capacities you're interested in by writing for the appropriate bulletin—then compare for yourself. 3 1/2 cu ft, tilting and non-tilting models, Bulletins R-1700-B9, R-1700-B10; 6, 11 and 16 cu ft models (6 cu ft on two wheels, 11 cu ft on two or four wheels, 16 cu ft on four wheels), Bulletin R-217A.

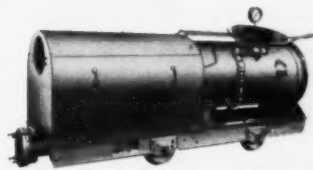


"Big" Stationary Mixers

Ask older Worthington Big Mixer users about the performance they've realized from their installations through the years. And ask newer users about the increases in output Big Mixers have brought them.

Big Mixers are made in 28-S, 56-S, 84-S, 126-S and 168-S sizes. All feature: spiral-cut-off positive control water tank, non-by-passing valves for charging and discharging the water tank, hydraulically controlled discharge chute, convenient centralized controls, true-circle machined drum roller tracks, self-aligning ball and roller bearings, and, of course—the exclusive Worthington mixing action.

Get more of the facts from your nearby Worthington Blue Brute Distributor or write to our Plainfield office for Bulletin R-1700-B2.



Pneumatic Concrete Placers

Worthington pneumatic concrete placers are designed to place concrete in tunnel linings, subways and other confined spaces. Write for more information on these units, specifying applications and other pertinent data, to our Plainfield office.



Truck Mixers

The Blue Brute Hi-Up Truck Mixer includes features requested by some of the country's leading ready-mix producers in a nation-wide survey. Take a look at these features: a new and exclusive water system designed for accurate water measurement and distribution, anti-freeze poppet valves, a high-pressure pump, an exclusive drive design provides absorption of twists and strains due to chassis movement as well as cushioning for load shocks. Center of gravity is lower to save wear and tear. Drum rollers are equipped with Timken bearings. Truck Mixer standard sizes: 3, 4 1/2 and 5 1/2 cu yds. Agitator standard sizes: 4 1/4, 6 1/4 and 7 1/4 cu yds. Write for Bulletin R-1700-B3A.



Dual Drum Pavers

Try to match the features you get in this new Worthington dual-drum paver with those of any other unit: a power loader skip that takes only 6 1/2 seconds from ground to discharge position of 56 degrees on low slope, transfer from first compartment to second compartment in approximately 6 1/2 seconds, discharge into boom bucket in approximately 6 1/2 seconds, boom bucket travel speed of 256 ft. per min., and a hydraulically controlled boom swing of 171 degrees. And it can swing and spread simultaneously, too! For the complete story on this newest dual-drum paver write for Bulletin R-1700-B8 to Worthington Corporation, Construction Equipment Division, Plainfield, N. J.

R.2.9



Fast Job Starts... LOWER COSTS

with **UNI-FORM Panels**
"TOPS" in CONCRETE FORMING



Form ALL Walls Straight, Circular and "Y" with ONE System!

- **FASTER JOB STARTS . . .**
 UNI-FORM Panels are ready to use when they reach the job.
- **AUTOMATICALLY ACCURATE . . .**
 Simple mechanical assembly
- **EASIEST FORM ERECTION . . .**
 Lock into rigid, integral unit
- **MINIMUM ALIGNMENT and BRACING . . .**
 Required on 1 SIDE ONLY

SAVE TIME . . . LABOR . . . MATERIAL

Write today for full details on Universal's "Sewage Treatment Plant Concrete Forming Package"... UNI-FORM Panels, "Y" Wall Forms, FREE Engineering and Field Service. It's designed to make money for you!

Elmira Sewage Treatment Plant, Elmira, New York
 General Contractor: Corigliano Brothers, Ossining, New York
 Engineers: Nussbaumer & Clarke, Buffalo, New York



Standard UNI-FORM Panels form the operation tank. Alignment and bracing on inside only give clean, safe outside working area.



Copyright 1952 by Universal Form Clamp Co., Chicago 51, Ill.

GENERAL OFFICES AND FACTORY
1238 N. KOSTNER • CHICAGO 51, ILLINOIS

OFFICES AND WAREHOUSES:

SAN LEANDRO, CALIF. 2051-9 Williams St.
HOUSTON, TEXAS 2314 Preston Ave.
CLEVELAND, OHIO 24901 Lakeland Blvd.
BALTIMORE, MD. 661 S. Monroe St.
SWAMPSCOTT, MASS. 51 Barnstable St.

Service Wherever You Build . . . Coast-to-Coast

» EARLY IN 1952 it became imperative that adequate highway communications be constructed between a vitally important industrial sector of eastern Korea and the nearest railhead situated approximately 40 miles to the west.

The existing highway was a tortuous single lane cart-trail winding through a series of mountain passes outlined by sheer rock walls on one side and sudden drop-offs of several hundred feet on the other. Even more challenging was the requirement of reconstructing an 853 ft. bridge across the treacherous Han River, notorious for its raging floods during the spring thaws and summer rainy seasons.

Reconnaissance had indicated that the existing 60 ft. piers could be utilized with minor repairs; therefore, the problem was the construction of a superstructure out of materials that could be transported to the site from the distant railhead over the treacherous mountain trails while they were being widened.

Won Fame at Kira Chon

This formidable requirement fell to the 32nd Engineer Construction Group commanded by Col. F. S. Tandy who has become a legend in Korean military construction circles for his bold and vigorous approach to all of the unique and difficult construction problems that have faced engineer units in Korea.

Due partly to their brilliant reconstruction of the famous Kira Chon railway bridge, but more so to their proven ability to accomplish the near impossible in a hurry, Col. Tandy assigned this mission to his 439th Engineer Construction Battalion.

Thoroughly schooled on difficult river crossings through his experiences in France in 1944, Col. Tandy consulted with Lt. Col. M. Clare Miller, Commanding Officer of the 439th who had collaborated with him on the launching of the then world's longest continuous girder at Kira Chon.

Since the narrow and tortuous roads precluded the possibility of delivering any heavy-lifting cranes or lengthy steel members to the bridge site, and since the constant threat of impending floods made it impossible to construct false work that could withstand the

Military Engineering Problems Unsurpassed in Korean Theater

- Han River Spanned in Record Time Despite Flood
- Longest Highway Bridge Completed Over Som River

By Headquarters, 32nd Engineer Construction Group

raging torrents, it was discouragingly evident that the crossing would have to be constructed from top-side.

Race Against Floods

Further complicating the problem was the well-known fact that the floods could be expected by mid-April if not sooner. Therefore, if the flow of vital materials was to continue through the rainy season, the structure had to be completed by April 15. Since it was a race against time, as are most construction missions in Korea, the comparatively simple but time-consuming method of launching a span at a time over completed portions could not be undertaken.



Official U. S. Army photo

Lt. Col. M. Clare Miller, commanding officer of the famed 439th Engineer Construction Battalion, now in its 18th month in Korea. Col. Miller, who as the executive of the San-Ore Construction Co., McPherson, Kan., has played an active role in affairs of The Associated General Contractors of America both locally and nationally, recently returned from the Korean battlefield, where he gained fame as one of the outstanding engineer officers in the Korean war. The unit is sponsored by the Kansas Contractors Association, A.G.C.

After carefully considering all angles of the problem Cols. Tandy and Miller were forced to attempt the bold and unprecedented launching of two continuous girders each 853 ft. long and each weighing approximately 375 tons. Such a decision is a splendid example of the problems confronting all engineer units during their entire Korean tour.

Busy on Other Jobs

Due to other heavy construction requirements of the 439th, Col. Miller could only make available two platoons of C Company commanded by Capt. Thomas H. Weeks of Russell, Kan., for the road work and the first platoon from B Company for the bridge assignment. Company C immediately started blasting the critical turns to widen them sufficiently for the transportation of the bridge materials.

First Platoon, B Company, commanded by 1st Lt. Orville S. Beard of Houston, Texas, very ably assisted by M/Sgt. Carl O. Hightower, Hays, Kan., in charge of fabrication and launching, SFC Rollin E. Gibson, Beatrice, Neb., in charge of welding, and SFC Donald E. Crowe, Hutchinson, Kan., in charge of material delivery moved on location to start preliminary work. Detailed construction plans were supplied by the battalion staff.

"Assembly-Line" Fabrication

It was determined that there were only sufficient launching rollers to cover the 12 piers, therefore, it would be necessary to devise a method of rolling the assembly-line fabrication of the girder onto the launching rollers.

The two continuous 853 ft. girders were fabricated by the bolted-splicing of pairs of standard built-up 36 in. steel I-beams, each 23 ft. long (the maximum length that could be trans-

While not as spectacular as the Han and Kira Chon jobs, this Som River structure is Korea's longest highway bridge.



ported over the treacherous roads), diaphragmed by the welding of 6 in-channel iron X-bracing and web-stiffeners. The assembly-line fabrication problem was successfully solved by the construction of a concrete working platform (later utilized as the bridge approach) upon which were placed parallel lines of commercial type roller conveyors such as are used for the loading and unloading of boxed or light materials.

Since the rollers were only designed for light loads it was necessary to distribute the heavy beam load by the use

of timber skids designed to accommodate one beam each. This method provided easy movement of each beam to its splicing position and later forward to the first launching roller.

Men Worked Day and Night

Working day and night with an undeniable determination to meet their deadline the men became very adept in the fabrication of the continuous girder. As each successive span was fabricated the continuous girder was moved forward to the next pier by means of a Hyster power-control unit

mounted on a D-7 Caterpillar tractor.

Even up to the time the final pair of beams were attached and the entire 853 ft. of steel weighing 375 tons was launched into final position the girder moved forward without serious difficulty. As ample evidence of the proficiency attained by these men in this fabrication and launching, it is worthy of note that the time required to completely fabricate and launch the second girder was slightly less than 8 days.

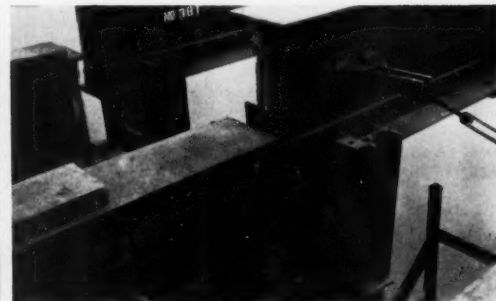
After the girders were in final position they were cut into span lengths (Continued on page 95)



Left above—This is the destroyed Han River bridge which confronted the 439th. Right—The assembly site for girder.



Left above—Workmen boxing a girder. Right—Detail shot of special rollers designed by Col. Ralph A. Lincoln.



Left above—Both girders are shown successfully launched, ready for jacking down. Right—Detail of jack-down cribbing.



Acceptance

Wherever you are, there's a MARION working near you —a MARION dragline, clamshell, crane, pull shovel, pile driver or walking dragline. The *worldwide acceptance* MARION machines have won over a period of 68 years is one of the best recommendations we have. Their selection for such impressive assignments as the Boulder Dam, Panama Canal, TVA dams, and other big projects in construction, mining, quarrying and coal stripping endorses MARION as a name you can trust. MARION has many "firsts" in the development and refinement of excavators and material handling machines. MARION offers more types and sizes of machines than any other manufacturer.

Look to MARION for resourceful, conscientious help in solving your excavating and material handling problems.

Write today for a copy of Bulletin 403-A—it pictures and describes in condensed specifications every machine in the world's most complete line of excavating and material handling machines.

MARION

POWER SHOVEL CO.
MARION, OHIO, U. S. A.

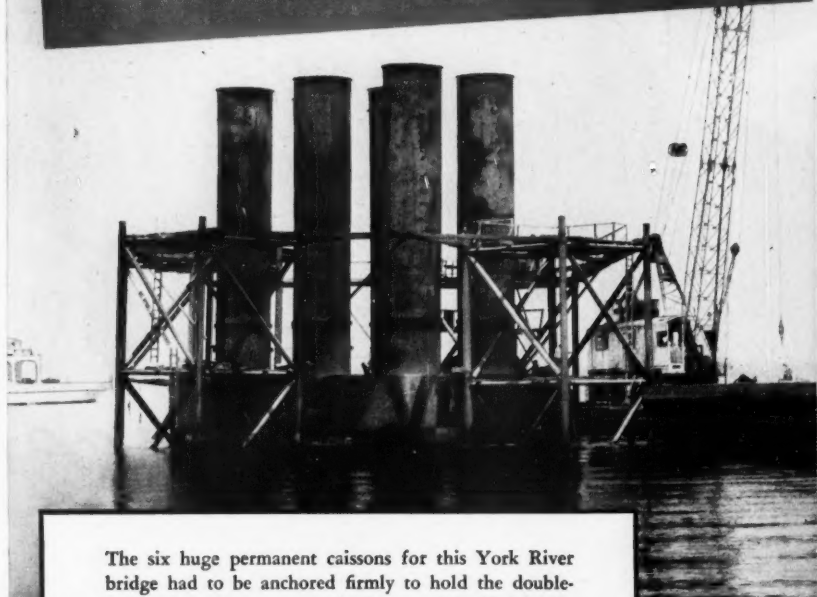


from 3/4 cu. yd.
to 45 cu. yds.

OFFICES AND WAREHOUSES IN ALL PRINCIPAL CITIES

**This McKiernan-Terry Pile Hammer
drove spud pipes in these dock towers**

60 FEET INTO THE RIVERBED



The six huge permanent caissons for this York River bridge had to be anchored firmly to hold the double-leaf, swing-span structure, the largest of its kind in the world. That's why the contractors turned to a powerful McKiernan-Terry Double-Acting 10-B-3 Pile Hammer to drive the anchor tower spud pipes into the riverbed.

At each corner of the pipe anchor towers was a 14-in. OD pipe. Inside these pipes, 12 $\frac{3}{4}$ -in. OD spud pile pipes from 140 to 150 feet long were driven 60 feet below the river bottom by the McKiernan-Terry Hammer. Piles for steel sheet cofferdams were also punched down quickly by a McKiernan-Terry No. 7 Double-Acting Hammer.

On scores of bridges throughout the country—and many other types of construction jobs—McKiernan-Terry equipment is playing a vital role. No wonder contractors rely on the power and dependability of McKiernan-Terry hammers and extractors. Wide range line includes 16 sizes of hammers and 2 sizes of extractors. Write for bulletin.



McKiernan-Terry 10-B-3 Pile Hammer which helped to build the substructure for the new bridge at Yorktown, Va. Massman Construction Co. and Kansas City Bridge Co. were the contractors.

**McKIERNAN
TERRY**

McKIERNAN-TERRY CORPORATION • MANUFACTURING ENGINEERS • 18 PARK ROW • NEW YORK 38, NEW YORK
Plants: Harrison, N. J. and Dover, N. J.

MK 918

(Continued from page 92)

and jacked down and secured to prefabricated double 12 in. H-column bridge seats which had been reinforced by 3 thicknesses of 1 in. steel plate.

Since the beams were on the outside of the piers there were insufficient working platforms for the jack-down. This necessitated the design, fabrication and use of special 10 in. H-column guides to contain the timber cribbing used in the jack-down. These guides prevented any movement of the heavy girder during the jack-down operation which was quickly accomplished without any trouble.

Specially Designed Jigs

Again stymied by transportation limitations it was necessary to use packaged 2 in. x 6 in. x 14 ft. laminated wood decking upon which was placed a 3 in. timber treadway. During the fabrication and launching of the girders other members of the platoon were, by the use of specially designed jigs, mass-producing prefabricated 16 in. lengths of 24 ft. wide decking. These were carried to final position by four men and the decking time was very materially shortened by this prefabrication.

Spring Flood Delays Work

The men of this platoon were amply rewarded for their many long and arduous hours of night and day back-breaking effort by the fact that on April 12 when they had only five more spans to deck, the unpredictable Han River went on its usual spring rampage, eliminating the temporary crossing in a matter of minutes.

Immediately jumping into the breach, these weary men started the temporary placement of the prefabricated decking and less than 12 hours later the flow of vital materials started over the product of their gallant efforts. The temporary decking was later secured under traffic and while the bridge was being constructed the long treacherous mountain pass trail was fast becoming a modern two-lane highway.

Longest Highway Bridge

While Companies B and C were accomplishing this unprecedented feat in military construction, and one which will probably never be duplicated, two platoons of Company A were concurrently adding still another "first" to the illustrious history being made in Korea by the 439th.

These units under the direction of

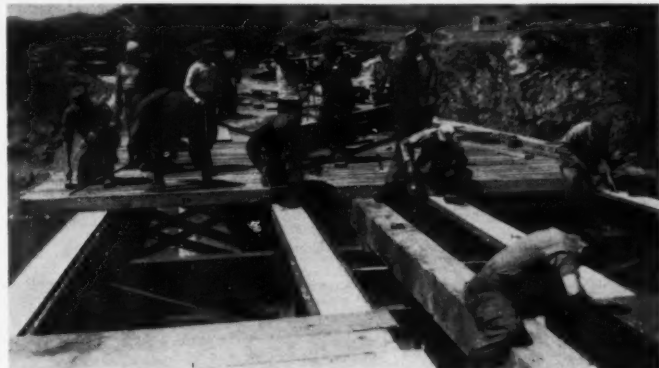
1st Lt. Hugh A. Neidert, Salina, Kan., assisted by M/Sgt. Forrest C. Cheever, Madison, Kan., M/Sgt. Dale E. Bush, Emporia, Kan., and Sgt. LeRoy Hawkinson, McPherson, Kan., were expeditiously completing Korea's longest highway bridge over the Som River. While not as spectacular as the continuous girder structure, due to its magnitude, this structure is definitely a major military construction feat that would seriously tax the resources of most any large state-side construction firm.

Spanning the wide Som River, this steel pile, 82 ft. x 36 in. rolled I-beam over the flow section and timber pile, 42 ft. x 24 in. I-beam structure over the overflow section has a total length of 2,135 ft. The professional manner in which this long structure is being constructed has drawn many favorable

comments from the Army Engineers that have visited the site.

The magnitude of the project can best be judged by a list of some of the major items of materials required for its completion. These major items include 16,560 lin. ft. timber piling, 5,400 lin. ft. steel piling, 2,316,354 lbs. steel in super-structure, and approximately 600,000 board ft. of lumber in the decking. This structure was scheduled to be ready for traffic on May 1, 1952.

The 439th is well into its 18th month in Korea and they have proven beyond any question of doubt the sound wisdom of the Army Affiliation Program. It can be confidentially predicted that their accomplishments in Korea will be long remembered and discussed wherever military engineers are gathered.



Decking time was materially shortened by prefabrication and mass production. Specially designed jigs were used. A 3-in. timber treadway was placed upon laminated wood decking.



The temporary by-pass for the destroyed Han River bridge is shown as it was being torn away upon completion of decking on the new structure.

Arata Aids in "Majority" Promotion



Major John B. Wong is congratulated for his promotion to majority by Winfield H. Arata, right, secretary-manager of the Northern California Chapter, A.G.C. Colonel Knute Hansston, executive officer of the 499th Aviation Brigade, is on left.

Winfield H. Arata, secretary-manager of the Northern California Chapter, A.G.C., assisted by Colonel Knute Hansston, executive officer of the 499th Engineer Aviation Brigade, pinned the gold leaves on recently promoted Major John B. Wong, USAR.

Major Wong, stationed in San Francisco with the Brigade, holds a

degree of Bachelor of Architecture from the University of California and is a building contractor in civilian life. His military knowledge and construction experience have been of great assistance in carrying out the present training program of the Brigade which is sponsored by the Northern California Chapter.

Seabees Lauded on Chicago TV Program



The accomplishments of the U. S. Navy Construction Battalion Reserve, popularly known as the Seabees, were subject of a television program on which appeared a number of building construction management and labor union representatives.

Each representative told of the purpose of his organization and explained his World War II support of the Seabees and told of the outstanding feats of the Navy construction men.

The men, who represented around 650,000 members of construction trades unions and the contractor organizations are H. Mayne Stanton,

secretary of the Chicago Builders' Chapter, A.G.C., and executive secretary of the Building Construction Employers Association; Stephen M. Bailey, vice president of the Chicago Federation of Labor; Patrick F. Sullivan, president of the Chicago Building and Construction Trades Council; David B. Johnson, president of the Chicago Builders' Chapter, A.G.C. and Captain William L. Richards, Navy Civil Engineer Corps.

Above, left to right, are Messrs. Sullivan, Johnson, Bailey, Frank B. Reynolds, moderator for the program, Stanton and Captain Richards.

Affiliation Program Status

During the 41½ years of the life of the program sponsored by The Associated General Contractors of America for the purpose of keeping the Corps of Engineers' reserve units filled with highly competent construction men, there has been the best of cooperation between the Army and the construction industry.

The affiliation program, which started as a long run project, was vaulted into immediate use by the Korean war. To date, two units are active in this struggle.

At home the chapters and branches of the A.G.C. continue to support the units they have sponsored. Altogether, 72 such units are in training in the United States and two more are on duty in Europe.

Of the 76 units either on active or inactive duty, there are: 22 engineer construction groups, 22 engineer construction battalions, 19 engineer aviation battalions, 7 engineer aviation groups, 3 engineer aviation brigades, 1 engineer dump truck company, 1 engineer maintenance and supply group and 1 engineer heavy equipment company.

Chapters Take Active Part

A.G.C. chapters and branches take an active part in forming these units. Throughout the country members assist in making up the reserve construction units with officers and men.

Other construction industry organizations are cooperating in the program. A.G.C. chapters are receiving local cooperation from architect and engineer organizations; state, county and municipal departments; equipment and material dealers and others closely allied to the industry. Construction labor unions have also cooperated in the effort. It is through this cooperation of so many others that some larger chapters have been able to sponsor more than one unit.

Army Department officials have informed the A.G.C. that its joint efforts with the Corps of Engineers in the affiliation program have made the construction industry outstanding.

The association also lends its support to the Navy's Bureau of Yards and Docks in the organization and maintenance of Seabee units and companies. A large number of the personnel of the A.G.C.'s members are in the Navy's Civil Engineer Corps Reserve.

RENT

these cost-reducing forms for concrete



Use this nationwide Form Rental and Engineering Service that saves costly Labor — Material — Time, when placing concrete for:

- Building Walls Foundations
- Tanks — Circular and Rectangular
- Water or Sewage Treatment Plants
- Bridges, Culverts and Box Tunnels

Standard units of Economy Forms are adaptable to a wide range of jobs. But where needed, special forms can be fabricated to specification.

ECONOMY FORMS CORP.

HOME OFFICE: DES MOINES, IOWA

DISTRICT SALES OFFICES:

Kansas City, Missouri
Omaha, Nebraska
Minneapolis, Minnesota
Ft. Wayne, Indiana
Cincinnati, Ohio
Pittsburgh, Pennsylvania
Springfield, Massachusetts
Metuchen, New Jersey
Decatur, Georgia
Dallas, Texas
Los Angeles, California
Oakland, California
Denver, Colorado

ECONOMY FORMS

METAL FORMS FOR CONCRETE CONSTRUCTION

NEW All-Steel

SAFWAY SHORE

✓ Goes Up Faster
✓ Holds More Weight
✓ Less Maintenance



You will get important savings on every shoring job when you use the new one-man, all-steel Safway Shore:

YOU SAVE TIME—because Safway Shores are erected so easily. Just extend upper tube to approximate adjustment—fasten with pin—rotate sleeve nut to exact adjustment.

YOU SAVE LABOR—because one man can carry, locate and adjust Safway Shores. Handle is at chest level. No nailing or bracing in most cases. Shores will stand alone.

YOU SAVE MONEY—because fewer Safway Shores are needed to support the same loads (capacities to 9,900 lbs.). Less maintenance required—sleeve protects threads.

SAFWAY SHORE ADVANTAGES

- **Only 3 Sizes**—Cover a 6-15½-ft. range. Each size adjustable through 5 ft.
- **3 Head Types**—8 in. U-head seats 4 in. or lapped 2 in. lumber. 14 in. U-head for beam formwork—square flat plates for reshoring.
- **High-Carbon Steel Tubing**—No wood members of uncertain condition and load capacity—no splintering or fire hazard.
- **Handle High Work**—Shores easily mounted on legs of standard Safway frame-type scaffold.
- **Bracing Brackets**—For heights over 12 ft.

Write for this Free Bulletin

RENTED AND SOLD
by distributors everywhere



SAFWAY
STEEL PRODUCTS, Inc.
6241 West State St.
MILWAUKEE 13, WISCONSIN
Tubular Steel Scaffolding and Equipment

NATIONAL DEFENSE

A-Bomb Shelters from Existing Buildings

• FCDA Describes How Alterations Can Protect 15 Million

» WITH SIMPLE changes, potential shelter areas in existing buildings can provide a "reasonable measure of protection" for 15 million persons in the event of an atomic attack.

This announcement, made by the Federal Civil Defense Administration in a new manual, is based on recent surveys conducted by the Census Bureau and a panel of technicians including a representative of The Associated General Contractors of America.

The census survey sought to determine the number of people without shelter in the nation's chief "target" cities and the panel of technicians studied how such a large segment of the population could best be protected within existing buildings.

Buildings Divided into Types

The manual is entitled Part II of the general study, "Shelter from Atomic Attack in Existing Building," and follows Part I which was published early this year. This latest volume, intended for general contractors, architects and engineers, tells in detail how to make buildings suitable for shelter areas.

It classifies buildings into "categories" and their deficiencies into "types". For instance, a Category I area is a multi-story reinforced concrete or steel frame building giving maximum protection with minor or easily-corrected deficiency types. A Category II area is the same kind of building but with less protection and more deficiency types.

The Category III area includes steel frame buildings that have both inadequate overhead and lateral protection and more deficiencies. In the Category IV class fall all buildings requiring extensive changes before they can meet the standards for Category I shelters.

Utility, Ceiling Hazards

The chief drawbacks of an area with a Type I deficiency rating are the utility, ceiling and neighborhood fire hazards. Reduction of these hazards calls for the construction of a masonry wall around such items as boilers, furnaces, and fuel storage tanks located in or near the area. Also, steam or gas mains entering the shelter areas should be housed to minimize danger

resulting from possible rupture, the booklet states.

Ceiling hazards can be eliminated by removing suspended ceilings or fixtures which could be dislodged by the shock of a blast or by falling debris. Also, concentrated loads on the floors above should be moved to lessen this hazard.

The manual states that the best way to reduce neighborhood fire hazards is to have good exits available to permit quick evacuation as soon as possible after the blast.

Type II deficiencies concern improper exits and glass hazards. Correction of the exit problem calls for rearrangement of furnishings to facilitate entrance and evacuation. If there is only one exit in the building, minor alterations can often be made to provide for another.

The glass hazard, usually found in door and transom panels, can be reduced or eliminated by replacing the material with inexpensive fiberboard. Use of a heavier material, such as plywood, is ruled out since a panel made of such tough material might be blown out in one piece and become a dangerous missile.

Central Core Protection

Type III deficiencies are found mostly in the lateral walls of modern skeletal frame buildings. It is assumed by the FCDA that these buildings will not be totally destroyed and will afford some protection from flying debris and radiation.

Therefore, correction calls for converting the center section of the building into a shelter area by constructing a reinforced-concrete "blast" wall around it.

On the basis of information gathered from blast scenes in Japan the agency recommends that such a wall be at least 8 in. thick. Since spacing between columns in most of these buildings is about 20 ft. and the height of a story around 11 ft., then such a wall would be roughly 20 ft. long, 10 ft. high, 8 in. thick and would weigh about 1,000 lbs. per foot of length.

Because this wall would be too heavy for conventional office floors to support, the civil defense officials recommend using the wall as a "deep" beam, spanning from column to column with

NATIONAL DEFENSE

the dead weight being carried by its ends.

Basement Requirements Listed

The last half of the pamphlet shows in detail how to improve shelter areas in basements of wall-bearing buildings, indicating the importance that authorities attach to such areas.

Chief recommendations for these areas suggest that:

1) Basement walls of this type building be 80% below ground level.

2) Buildings should be shielded by other structures or should be tall enough to afford protection from initial gamma radiation.

3) The shelter roof should be strong enough to withstand debris that might pile up from collapsed floors and walls above.

4) There should be handy and adequate exits from such basement shelter areas.

A-Bomb Shelters in Schools

The Federal Civil Defense Administration published recently another manual entitled "Civil Defense in Schools", designed to aid school administrators in developing programs that will save children's lives in the event of attack.

Central corridors in school buildings can be turned into suitable air raid shelters for the nation's children in case of an A-bombing.

FCDA suggested that engineers, architects and building inspectors assist in school building surveys and shelter selection.

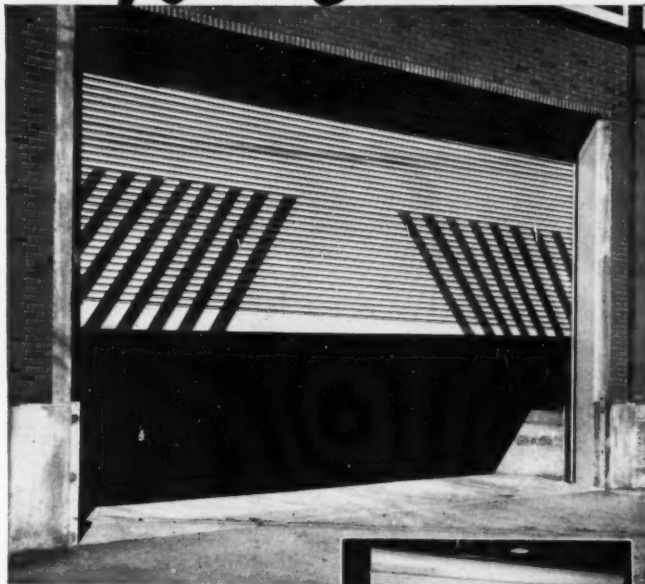
Corridor Protection Described

The pamphlet states: "On floors above ground level, a central corridor with permanent walls on both sides is generally considered safest. Where corridors are used for shelter, a three-foot passageway should be maintained and stairways and exits kept clear."

School officials are warned not to use areas opposite doorways or top floors for shelters because there is the danger of flying glass from panes or transoms in the doors and lack of protection on top floors.

The booklet recommends for shelters only those basements with substantial walls, at least 80% below ground, and at least two exits, well apart from each other. Ruled out for possible use are basement rooms containing heating plants, hot water tanks, electrical distribution equipment or compressed gas cylinders.

KINNEAR Rolling Doors



Greater Efficiency
SAVES
Time, Space, and Money



Every Kinnear Door is tailored to fit the individual opening, in old or new buildings. Coiling neatly above the lintel, they open straight up—can't interfere with traffic or other plant activity. A half-century of use under the most difficult conditions gives complete proof of the Kinnear Door's capacity for years of hard, constant service.

They save money because their rugged, all-steel, interlocking slat curtain assures long life and low maintenance costs, plus extra protection against fire, intrusion, or wind damage. Slat surfaces are heavily zinc coated by the hot-dip

process, and a special Kinnear Paint Bond is applied to assure lasting paint adhesion.

They save space by opening straight up and coiling above the doorway, allowing all floor and wall space around the door to be used at all times.

They save time with their smooth, easy, gliding action. With motor operation, doors can be fully and safely controlled by push-buttons from any number of convenient locations.

Write for your copy of new catalog.

The KINNEAR Manufacturing Company

FACTORIES:
650-680 Fields Ave.,
Columbus 16, Ohio
1724 Yosemite Ave.,
San Francisco 24, Calif.
Offices and Agents in Principal Cities

Saving Ways in Doorways

KINNEAR
ROLLING DOORS

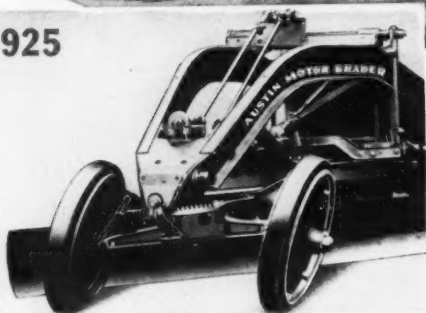
Yesterday

Building a



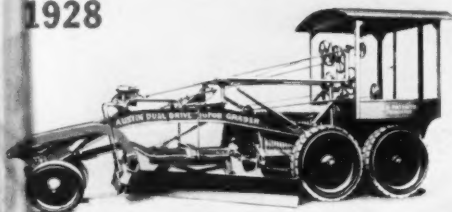
Builder of the world's first road grader in 1879,

1925



1925—First Motor Grader with leaning front wheels.

1928



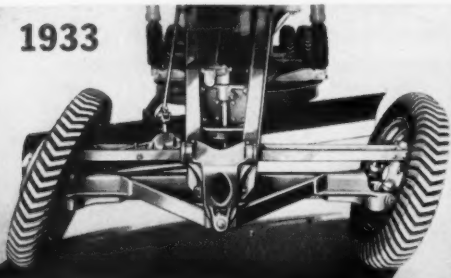
1928—First Motor Grader with dual (tandem) drive.

1932



1932—First Motor Grader with hydraulic control.

1933

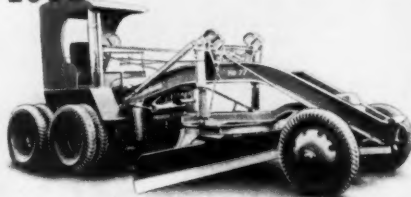


1933—First Motor Grader with wide front axle.

Austin-Western has pioneered more

motor grader features than any other manufacturer, through the years. The motor grader of 1933 was a much better machine than those of the early 20's, but was still almost totally incapable of doing heavy ditching and rough grading. It remained for Austin-Western to take the final step in motor grader design—the all-wheel drive, all-wheel steer "99" Power Grader of 1937, which gave the owner a machine capable of going places where ordinary motor graders couldn't go . . . doing things they couldn't do.

1933



1933—First Motor Grader with diesel engine.

1937



1937—First All-Wheel Drive, All-Wheel Steer Power Grader.

*Motor Grader History is
Austin-Western History*

Greater POWER GRADER

Today



the POWER GRADERS that have Everything

The Austin-Western Power Grader of today owes its matchless performance to *completely effective* use of power. Through All-Wheel Drive, every pound of weight is a powered pound, harnessed to a driving wheel—and contributing every ounce to tractive effort. This tremendous traction—perfectly directed and controlled through All-Wheel Steer—provides superb earth moving ability, and mastery of all types of work. Additional values are offered by specialized attachments, which greatly increase the usefulness and day-in and day-out profit making ability of the graders.

AUSTIN-WESTERN COMPANY, AURORA, ILLINOIS, U.S.A.
Subsidiary of Baldwin-Lima-Hamilton Corporation

"88-H"—bringing to the field of motor graders of medium size the extra traction and power-at-the-blade of all-wheel drive; the unequalled maneuverability of all-wheel steer, and the other exclusive features which have made the "99's" so deservedly popular.

"99-H"—the "old reliable"—out in front of the motor grader parade since the original "99" of 1937. Popular with contractors and highway departments for its all-around performance, under all conditions, in all seasons.

MASTER "99"—combining all of the time- and money-saving features of the "99-H" with the extra power, traction and road speed of its 100 horsepower engine. Tops in performance and value for those who want the best.



AUSTIN-WESTERN COMPANY · Subsidiary of Baldwin-Lima-Hamilton Corporation · AURORA, ILLINOIS, U.S.A.

Austin Western



SINCE 1897 - BUILDERS OF CONSTRUCTION EQUIPMENT



Toll Financing - Gateway to Increasing Highway Construction?

» THE GREAT DEBATE over toll roads has raged throughout the nation with renewed fervor this year as a number of state legislatures considered the feasibility of such facilities in their own domains.

Stirred by the completion of such projects as the New Jersey Turnpike, the Denver-Boulder Turnpike and new extensions to the Pennsylvania Turnpike, legislators of other states are hungrily surveying possibilities for such maneuvers at home. Pressure for adequate roads has built up to some proportions and the toll plan for raising the money looks to many like the easy answer.

Big Year for Toll Roads

There have been impressive toll road developments during the year. The New Jersey Turnpike, a 118-mi.-long superhighway from the new Delaware Memorial Bridge in the south to New York City was completed. The Denver-Boulder toll road was completed and is enjoying toll revenues which, the state highway engineer says, "exceed our fondest expectations." The people of New York State approved a \$500-million financing plan to provide a toll highway 535 mi. long. Extensions to the Pennsylvania Turnpike—66 mi. to the west and 100 mi. to the east—were finished, making that facility 327 mi. long.

Scenes on the Merritt Parkway and Pennsylvania Turnpike—two of the first toll superhighways in America.

In other states across the nation, toll road proponents were on the march—their cause popularized by apparent construction needs.

Virginia's Governor John Battle, in his message to the legislature, called for a study of the possibility of toll highways and a bill was introduced which would allow the state to construct such facilities.

Both houses of the Georgia legislature passed bills creating a Turnpike Authority, empowered to build toll roads. In Wisconsin, a legislative interim committee is drafting a comprehensive report of the feasibility of toll roads for the principal through-traffic routes in the state.

Actual construction on a \$96 million toll road to run 88 mi. in West Virginia is expected to start in three months.

A proposed Ohio Turnpike, thrusting westward across the state, is moving toward reality. The 241-mi. expressway, connecting with the Pennsylvania Turnpike, will further ex-

tend the fast-solidifying network of toll roads lacing the Atlantic and New England states. The state floated a \$330-million bond issue last month to finance the huge project.

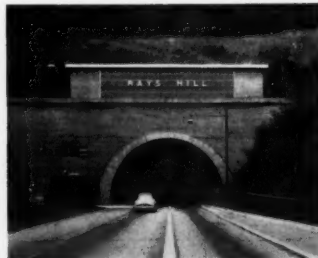
North Carolina's State Turnpike Authority is considering toll roads across the state; so are Kansas, Michigan, Iowa, Florida and Tennessee.

New Jersey Plans Another

Toll road-conscious New Jersey legislators have passed a bill providing for completion of the 165-mi. Garden State Parkway. Another bill provides for a referendum on placing the state's credit behind a \$285-million bond issue to finance the project.

The Massachusetts legislature has passed enabling legislation for a 130-mi. cross-state toll superhighway from Boston to the New York State line. A three-man authority is empowered to issue revenue bonds to finance the estimated \$150 million to \$200 million cost of the project.

Down in the Southwest, Johnston



Murray, governor of Oklahoma, is fathering a plan to construct a toll highway system that would run through four states. Under a toll authority representing Texas, Oklahoma, Kansas and Missouri, a series of turnpikes, costing close to \$300 million, would be built. The route would run from Houston, Tex., to Kansas City and St. Louis, Mo., incorporating in it the Oklahoma City-Tulsa toll road, now under construction.

Connecticut's governor, John D. Lodge, has authorized the state highway department to proceed with plans for construction of a six-lane toll road between New Haven and the New York state line. The 44-mi. road would almost parallel the Merritt Parkway, a toll highway from which trucks are banned, and would cost about \$112 million.

The outcome of all this will apparently be a rash of super-highway construction that harder-to-face financing has not thus far provided.

Diversity of Reasons Given

Debate over the merits of toll financing has risen to new heights and lawmakers are weighing all the arguments pro and con before going overboard for the idea. Reasons aired in those states are diverse.

They range from the very general purposes stated in the Maryland law to provide toll roads for "the removal of handicaps and hazards on the congested highways of the state, the promotion of agriculture and industry, and the provision of modern transportation facilities," to the Illinois measure which deemed toll road construction a means of relieving unemployment anticipated at the end of World War II.

The New York Thruway Committee asserted that use of that route would lower motor vehicle operating costs considerably and ultimately reduce consumer prices. In Michigan, advocates believed that highways paid for by toll charges would release state highway funds for other needed construction. In Arkansas, toll financing was considered for routes where terrain would have made construction costs prohibitive otherwise.

In other states toll roads have been promoted recently to extend the super-highways of neighboring states and accommodate the increased interstate traffic stream. It is this reason that seems to be the stimulus behind several of the expanding toll systems.

Most Compelling Reason of All

But the most compelling reason for most states, as Wilfred Owen and Charles L. Dearing of Brookings Institute have stated in a recent study (*Toll Roads and the Problem of Highway Modernization*), is simply that there is "an accumulation of road needs in excess of revenues currently available" and highway users oppose increased gasoline taxes and registration fees—the time-honored method of paying for the roads.

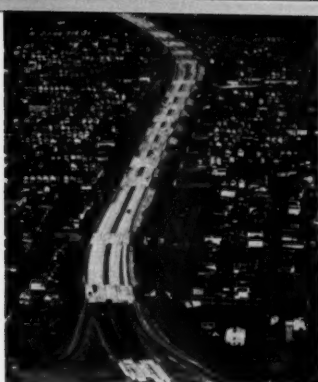
The "accumulation of road needs" is an obvious problem, an object of public consternation in most states. It requires astronomical statistics in the aggregate. The American Association of State Highway Officials has set the total national highway need,

as of six months ago, at over 424,000 miles requiring improvements which would cost \$32 billion. Many communities are facing congestion and high accident rates because construction of new facilities is lagging.

Although there have been a number of gasoline tax boosts since the war (January *Constructor*), they have not yielded nearly enough money to build the miles of new roads needed. Hard-fought political battles to gain increases, even when successful, have failed to adequately expand highway systems which are carrying an unprecedented traffic stream. The perpetual debate over who should pay for the roads still rages in the living room, while the toll roads proposal sidles in the back door. Wherever a heavy stream of traffic through a state de-

A study in contrasts—the top picture is of U. S. Route 17 through a southeastern state faced with the typical problems of obsolete highways and through-city traffic. The picture below is of the New Jersey Turnpike, which bypasses many of the state's cities and industrial areas in one clean sweep. Toll financing is making possible such differences in the highway systems of many eastern states.





Superhighways in the East made possible by toll financing have, in common, limited access, divided roadways, no stops . . .

mands a new and heavier highway and the public opposes bond issues or tax increases sufficient to build it, the toll road proposal wins support.

It appears at that time to be the only device left. As one advocate has said, "Every public toll facility built (in the last 30 years) has been constructed as a matter of necessity. There was no choice."

Highway User Groups Protest

Highway user groups and automobile associations label this tendency a snare and delusion. Motorists are already paying taxes for roads, they say. Why should they pay again in the form of toll charges? If the proposal were passed in all the states now considering it, truckers, tourists and traveling salesmen would soon be paying for a great deal of highway in a good many states (the Owen-Dearings study last year showed almost 2,000 mi. of toll roads in operation, under construction or authorized). The rate would be painful. A one-cent-per-mile toll is comparable to a 12¢ to 16¢-per-gallon gasoline tax.

Furthermore, opponents point out, local citizens cannot use a superhighway which, like present turnpikes, has access points 15 to 20 mi. apart. Local traffic would be held to the same old, depreciated roads. A state highway department would not improve these parallel facilities, they contend, for fear of drawing the paying traffic off the toll route.

Revenue Diversion Deplored

Toll roads would not even be necessary in many instances, critics contend, if states used present highway revenues for new road construction. Only 21 of the 48 states have constitutional provisions that all gas tax revenues shall go to highway uses. The remaining states diverted about \$200 million last year for other purposes—a practice which Pyke Johnson, president of the Automotive



. . . and this familiar road sign

Safety Foundation, called "an indefensible record of inequity."

The National Highway Users Conference went on record again a few weeks ago as opposed to toll roads, in principle, and has blamed the misuse of highway user funds for the present agitation for toll financing. Thousands of miles of free roads could be built, the association claims, with monies now being diverted, and the toll road proposals would die.

The most damaging argument against some toll financing is that construction bonds, unsecured as they are except by the state agency, carry a high rate of interest (as high as 3¼%) compared to the customary 2% or less of general state bonds. The additional cost involved in collecting tolls and maintaining stations is another disadvantage.

The higher interest rate has just been circumvented in New York State where the voters approved a constitutional amendment allowing use of the state's credit to obtain a lower interest rate. A saving of \$100 million is claimed. New Jersey officials hope

to gain approval of a similar plan in a referendum next fall for financing the Garden State toll parkway.

A Case of "Either-Or"

Most authorities agree that there are a few instances where a toll road seems to be the only way to secure the improvements needed. In other cases the question would not have arisen if sufficient revenues for road construction were obtained through conventional financing. A. C. Butler, National Highway Users Conference, predicted several years ago, "We must either provide financing needed for free roads . . . or we will soon be financing toll roads."

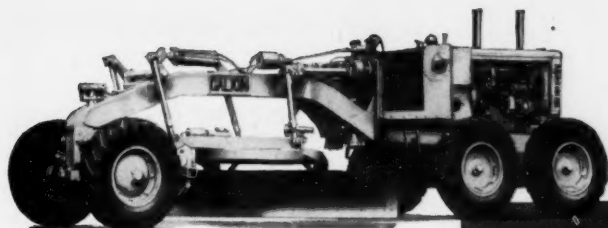
A state engineer in a debate on the subject has said more recently, "Highway user groups who have been opposing increased tax rates will have to recognize they can't play on both sides in this game. If they are against toll financing, they must be for a realistic approach to free-road financing, even though it may mean an increase in tax rates. A watered-down free-road program provides the atmosphere in which toll roads will develop."

More Federal Aid Asked

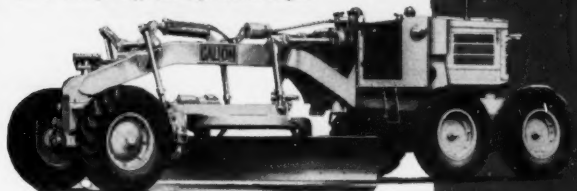
Kermit Rykken, American Automobile Association, recommended to a Senate Public Works Committee this spring that the federal government boost its allotments to the states for interstate highways. An increase from the present 50% to a 75% share would be a "strong stimulus" to improve highways in urban areas and might halt a trend towards toll roads.

The Bureau of Public Roads is attempting to stand away from any state controversies over toll roads. Their natural position is that a state can build just as good superhighways through conventional financing and avoid the high interest rates and collection expenses of the toll system. The bureau does not allow use of

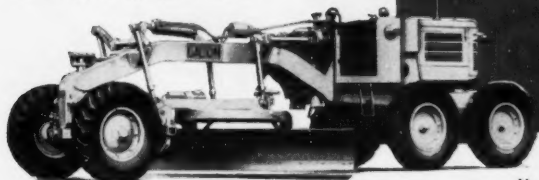
(Continued on page 107)



No. 118 MOTOR GRADER
Extra Heavy-Duty, 100 h.p. Diesel Engine



No. 104 MOTOR GRADER
Heavy-Duty, 76 h.p. Diesel Engine



No. 203 MOTOR GRADER
Medium Heavy-Duty, 70 h.p. Diesel Engine

GALION ***GRADERS***

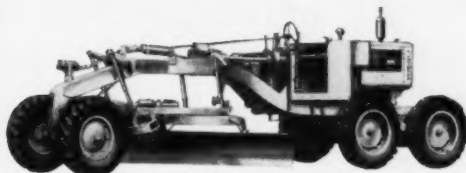
STANDARD EQUIPMENT

includes
Same size tires.....
on front and rear.
Manual steering with
hydraulic booster.

on Nos. 118, 104, and 203

COMPARE BEFORE YOU BUY !

Every feature necessary for top performance is included as STANDARD EQUIPMENT on Galion Nos. 118, 104, and 203 Motor Graders. When you compare prices--also compare standard equipment--and you will see why GALION gives you more for your money.



No. 303 MOTOR GRADER
Medium-Duty, 50 h.p. Diesel Engine, Hydraulic
Booster Steering and Large Front Tires are
available as extra equipment.

A size for every need and use. Write for information on the size in which you are interested.

GALION

ESTABLISHED 1907

MOTOR GRADERS • ROLLERS

THE GALION IRON WORKS & MFG. CO., General and Export Offices — Galion, Ohio, U. S. A.
Cable address: GALIONIRON, Galion, Ohio



It's easy to see
when a shirt
doesn't fit

But with cement, it's not that easy . . . and air-entraining cement . . . like a shirt . . . must fit **TWO WAYS!**

From size 14-30 to 17-36, shirts come ready-made to fit almost any man. But when you're using air entraining cement, remember—there's only *one* "size"—set by rigid Federal and ASTM specifications. And on many jobs it just won't "fit."

Naturally, you wouldn't buy a shirt that's right around the collar but has sleeves reaching down to your fingertips. And it works the same way when you're ordering cement. Before you'll get air entrained concrete that's perfect, you must make sure of the measure *two ways!* First, determine *how much* air entrainment is right for your particular job . . . and then, the air entraining effect of your aggregate, its gradation—and even the temperature of the mix . . . all factors that can change the amount of air actually entrained in your concrete.

You've got to be right on *both* counts—to be sure of "form-fitting" concrete!

You may find that air entraining cement measures up perfectly. But more likely you'll discover that it's safer . . . and smarter, to add the *required* amount of a well known air entraining agent with regular portland cement at the mixer. Just remember to use air entraining cement *only* when you're sure . . . and remember, too—you can't buy better regular portland or air entraining cement than Marquette.

★ ★ ★

If you have any problems or questions on the use and mixing of air-entrained concrete, the Marquette Service Engineer will be glad to help and advise you—contact any Marquette office.



Marquette Cement

MANUFACTURING COMPANY

SALES OFFICES: Chicago • St. Louis • Memphis • Jackson, Miss. • **PLANTS:** Oglesby, Ill.
Des Moines, Ia. • Cape Girardeau, Mo. • Nashville, Tenn. • Cowan, Tenn. • Brandon, Miss.

PORTLAND • HIGH EARLY STRENGTH • AIR ENTRAINING • MASONRY

federal appropriations for toll roads or utilization of a free road route for new toll facilities.

Those four factors—(1) higher interest rates, (2) toll collection expenses, (3) denial of federal appropriation and (4) denial of existing free road routes to build on—may foredoom toll roads in some states. But there are other states where the traffic load demands new facilities.

Public Not Resentful of Tolls

Although opposed to increases in gasoline taxes, registration fees, ton-mile taxes or bond issues, the public in a number of such states is not allergic to the toll charge proposition. Wholesale adoption of toll financing as the way to pay for new roads may arouse public resentment in the future. At this time, however, the traveling citizen seems delighted with the new superhighways and willing to pay the toll.

Traffic on the newly completed facilities is far heavier than expected and toll collections subsequently far in advance of highway officials' highest hopes. A recent Gallup poll showed that "a substantial majority of persons polled favor new superhighways across their states, paid for by tolls." The survey found the vote for toll roads especially high in the East and Midwest, not so high in the Far West where "free" highways are considered excellent or good already. The national vote favoring new toll roads was 57% in favor and 28% opposed. In the New England and Middle Atlantic states, it was 62% in favor to 23% opposed.

A Lesson to Learn

There are legitimate arguments on both sides of the toll road question. Increasing use of the method will probably stimulate some fierce discussions in the future and new consideration of the theory of highway financing and tax responsibility. Such appraisals may well elevate the importance of continued highway construction and accelerate the acceptance of superhighways as necessary, not luxury, items. As Economist Wilfred Owens, toll road expert on the Brookings Institute staff, said recently,

"It is too bad that the lesson of the toll road has not been taken to heart in America. If the energies expended in decrying it were loosed on the lawmakers to provide more modern financial tools the results would no doubt be gratifying. The gasoline tax and



All good roads are not paid for by tolls. A stretch of the Shirley Highway near Washington, D. C. All photos in this article by Bureau of Public Roads

the registration fee, which provided a remarkable financing combination in the past, could very easily continue to serve the accelerated demands of 52 million vehicles.

"In any event, toll roads are breaking the log jam of accumulating main-road construction projects. They are offering a demonstration of what needs to be done to renovate outmoded fi-

naning policies and to allow this nation on wheels to get rolling. In the meantime the motorist appears to be enthusiastic about paying the toll on the latest facility in New Jersey and perfectly willing to forego the familiar horrors of U. S. Route 1. Automobile drivers have come to doubt, when it comes to roads, that the best things in life are free."

Four-State Toll Road System Proposed

Johnston Murray, governor of Oklahoma, is sponsoring a plan for an interstate compact to build a series of turnpikes from Houston, Tex., to Kansas City and St. Louis, Mo., through the states of Texas, Oklahoma, Kansas and Missouri.

This recent statement by Governor Murray may be typical of other state officials, frustrated in their attempts to raise adequate construction funds through traditional financing methods.

Bemoaning the fact that taxpayers will not "foot the bill at this time for a modern system of free roads," he declares that many states, including Oklahoma, "are turning to toll roads in desperation."

"Aside from toll roads," the governor claims, "we don't have much

choice. The only other way I know to get the kind of super highways needed is to levy much higher taxes for that express purpose. In my judgment, the average person has a bellyful of taxes. He won't hold still while we add more weight to the tax load he's already carrying, not even for so worthy a purpose as new highways. But motorists who want better main highways . . . should be willing to pay for them as they use them, a little at a time."

Referring to the accident rate on currently congested highways and the need to relieve it, the governor said, "If it can't be done in any way except by building toll roads, then I say, let's build them where they are most needed."

"What it all boils down to is this," he concluded. "The people must decide whether they want the super highways which are needed now, rather than waiting for some legislature in the dim and distant future to provide them. Like almost everyone else, I much prefer a free road to a toll road. But I know we can't build super highways, complete with grade separations and safety features, out of the road money now being collected in taxes."

Ohio Turnpike Bonds Go Fast

The Ohio Turnpike's \$326-million revenue bond issue, largest of its kind ever made, were quickly over-subscribed when offered last month.

The securities were quoted at 102 bid, 102½ asked, compared with the price of 100 at which they were offered to the public.

Revenue Bonds Recommended for Airports

• Consultant Says Great Volume of Work Possible by Method

» AN AIRPORT terminal consultant told the American Society of Civil Engineers convention last month that an impressive future in airport improvement work lies ahead if municipal officials recognize the merit of financing such construction through revenue bonds.

James C. Buckley, president of a New York City consulting firm bearing his name, said that "no (other) subject, with the possible exception of future federal appropriations for airport aid, bears so directly on the volume and type of municipal airport improvements which may be expected in the next five or ten years."

"The financing of airport improvements with revenue bonds presents an opportunity for the engineer to perform a real public service both by helping the community to secure now the needed airport improvements which might be long-delayed or never built . . . without burden to taxpayers," he declared.

Revenue Bond Method Slighted

The proposal is unusual because of almost complete disregard heretofore of that method of raising construction money for airport work.

Even the Port of New York Au-

thority, while issuing revenue bonds for airport improvements or construction of new airfield facilities, pledges the revenue of all her other facilities behind the bonds—not just the anticipated revenue of the proposed installation.

Mr. Buckley cited the case of Denver's Stapleton Airport in support of his theory. It is the only significant instance of such a move, he reported. The City and County of Denver last August succeeded in selling \$1.75 million worth of revenue bonds to finance expansion of terminal facilities at the airfield. They are backed solely by the future income of the proposed terminal facilities. The Buckley consulting firm investigated the feasibility of such a method and issued the report recommending the bond issue.

While recognizing that "it may be necessary sometimes to pledge additional revenues up to the revenue of the entire airport, and even to give a mortgage on the airport in order to accomplish essential airport financing," Mr. Buckley maintained that bonds could justifiably be issued with the backing of only the facility to be built.

Unusual needs make the theory of practical consideration, he felt, in the

light of the backlog of airport improvement needs.

Pressing Need for Improvements

"Today, municipalities have a pressing need for airport improvements which will cost hundreds of millions of dollars. Most of them, however, have an even more pressing need for streets, schools, sewers, libraries, hospitals, and other essential municipal facilities. And there isn't enough margin within the limits of their general obligation debt to go around. A substantial portion of the needed airport improvements will not be made," he asserted, "unless they can be financed outside the debt limit with some type of revenue obligation."

He advised the civil engineers to develop an understanding of the financial method and turn to independent evaluators in any particular construction proposal for a feasibility report on the venture.

Airports Inadequate for Planes

In a talk before the A.S.C.E. convention in Denver last month, James C. Buckley, New York transportation consultant, reviewed the factors behind airport improvement needs.

Compressed into the five years of World War II was a four-fold increase in air passenger traffic, he said, as well as increases in the size and weight of transport aircraft a decade or more ahead of their time. The civil airport system was geared to the modest requirements of DC-3 aircraft—a runway length of only 3,300 ft. at sea level, pavement strength adequate to support aircraft with gross weight of only 25,000 pounds, loading positions with a diameter of only 125 ft., and terminals geared only to peak-hour loads of 21-passenger aircraft carrying 3.5 million persons annually.

After the war, the same system was faced with a four-fold increase in air traffic and the increased requirements of the DC-4, the DC-6, and the Constellation. This meant a required runway length of about 5,000 ft., pavement strength for aircraft weighing up to 100,000 pounds, loading positions with 160-ft. diameter, and terminals geared to peak-hour loads of up to 58-passenger aircraft serving an annual travel market of 12 million people.

Butler Appeals Support for PAR Drive

• Adequate Roads Movement Gets Boost at W.A.S.H.O. Meet

» THE PAR (Project-Adequate Roads) movement was given another boost last month at the Western Association of State Highway Officials convention. Arthur C. Butler, director of the National Highway Users Conference, called it the first great movement of its kind in 30 years and appealed for continued support in a public relations campaign to bring the highway problem before the American taxpayer.

"PAR's work will be to . . . let the people know about their highway situation and to enlist their aid in correcting highway deficiencies," he said. "Unless John Q., himself, first understands the highway situation and gets out and makes himself heard, he hasn't much chance to get the roads he wants."

Mr. Butler told the highway officials that 40 different organizations which

have vital interests in adequate roads are backing the PAR drive—such as trucking interests, bus industry, farm organizations, road constructors, automotive interests and the rubber and petroleum industries.

Publicity about the program is reaching an un hoped-for volume—both nationally and locally, he said, as he outlined ways in which the movement is absorbing public interest.

PAR is seeking support of several specific principles which the sponsors believe will alleviate the national highway needs.

"PAR points out that we must have continuing highway programming," Mr. Butler said. "Thus, we may set about to correct critical deficiencies, where they exist, according to priority of need. This involves a priority program of urgent needs which, accord-

(Continued on page 110)

GENERALS

do any job, anywhere —
**FASTER! EASIER!
AT LOWER COST!**



**THE
GENERAL
L.C.M.**



GENERAL L. C. M.

For most work off the road, some on. Broad, deep lugs and thick, rugged shoulders prevent cuts, snags, bruises. More rayon cords, more rubber for extra carcass strength.



**THE
GENERAL
H.C.T.**



GENERAL H. C. T.

Designed for most work on the road, some off. Long-wearing safety tread and reinforced shoulder cleats give more traction, more original and recap miles.



**THE
GENERAL
D.T.L.**



GENERAL DUAL TRACTION LUG

To move more yards of dirt, the General Dual Traction Lug digs deep for more traction in soft going, forward or backward. Makes heavy jobs easy.

Make Every Worn Tire Work Longer for More Profit!

**Your General Tire Dealer will KRAFT SYSTEM RECAP Worn Tires
with the New General Truck Tire Tread of Your Choice**



You're throwing away money when you throw away worn tires or accept an ordinary "adjustment" for them. Let your General Tire Dealer—a tire expert—restore worn tires with famous factory controlled Kraft System

Recapping. You choose from the complete line of on and off-the-road new General Tire treads and he'll put that tread on your worn tire. He can do sectional repairs too. Get Kraft System Recapping —get more profit from every tire.

SPECIFY GENERAL TIRES ON YOUR NEW EQUIPMENT

W.A.S.H.O. Meet Studies Road Financing

• Horner Reports Keen Bidding Competition, Bugge Advises Tolls

» FIVE HUNDRED western state highway officials, trade association representatives, engineers and contractors heard speakers at the Western Association of State Highway Officials convention attack current road problems of the nation.

Arthur S. Horner, Colorado contractor and president of The Associated General Contractors of America, assured the group in Seattle last month that there is ample capacity in the construction industry to perform road building efficiently and economically. He stated that keen competition prevailing among contractors is holding prices down.

"There are contractors who believe that the bidding has been so low they were cutting their own throats. It is true that during 1951 the failures in

general contracting were greater than any of the previous 17 years and 1951 was a year when business failures in other lines were decreasing," he reported.

"Whether or not highway contractors have gone broke, it is a fact that state highway departments and the public have received the benefit of this competition. As contractors we welcome keen competition."

Return Tax Money to Roads

The A.G.C. president also attacked the inadequacy of federal-aid highway appropriations, in the face of existing needs. "One of the reasons, I believe, that current and prospective appropriations are inadequate is because more than \$1.5 billion in excise taxes are collected annually from highway traffic, and currently about one-third of that amount is being appropriated for federal aid highway construction."

William A. Bugge, president of W.A.S.H.O., encouraged the road officials to consider possible new sources of revenue for needed highway improvements. "We are in a crisis," he declared, "and in many instances the traditional pay-as-you-go method simply does not provide the funds with which to overcome deficiencies in our highways within a reasonable period of time."

Recommends Toll Financing

Bonding for highways is a "perfectly valid method" for fund raising, he maintained, and toll financing might well be utilized to secure adequate roads. He pointed out the acceptance of such methods to make vital bridge construction possible and reasoned, "There doesn't appear to be any good reason why we here in the western states shouldn't consider seriously the possibilities of constructing toll roads which would provide services as desirable to the motorist as special bridges."

"We as highway officials must remember that we are in the business of providing highway services for the motoring public and if the public wants toll roads and demonstrates the demand for such roads by paying special fees for their use, we must satisfy their wishes and build a toll road," he asserted. "In the current transportation crisis we must use all the means possible to modernize our roads."

The western state officials moved in

formal resolution "to expedite in every way possible the placing of all existing funds as well as the new funds that may become available from new legislation so that highway improvements may be made as soon as possible."

Mark Watrous, state highway engineer for Colorado, was elected new president of the association.

Contractors and state highway officials met in joint conference last month to discuss mutual problems relevant to road construction.

Meeting in conjunction with the Seattle convention of the Western Association of State Highway Officials, a co-operative committee of the A.A.S.H.O. and The Associated General Contractors of America reviewed the steel situation, maintenance by contract, and termination clauses.

A. N. Carter, manager of the A.G.C. Highway Division, reported that a number of states are apparently convinced of the reason in awarding maintenance work to contractors rather than attempting to handle all of it with their own forces.

State officials were urged to obligate all available funds for construction, if they expect to make full use of increased federal aid funds expected soon. Increasing emphasis on public relations was foreseen at the conference as a means of enlisting public support of highway improvement programs.

* * *

In spite of steel shortages earlier this year, a number of states continued to plan on more highway construction in 1952 than last year. Twenty-nine states have budgeted increased funds—most notable of which is New York where \$180 million will be spent on the New York Thruway and another \$125 million on regular highway work.

Rhode Island, Oklahoma, Arizona, Illinois and Massachusetts are planning to spend twice as much this year. Illinois has budgeted \$95 million and Massachusetts plans an increase in funds from \$48 million to \$90 million. Virginia set a tentative allocation of \$30.6 million for the next fiscal year beginning July 1—a record amount for that state. Florida has reported a tentative budget of \$154.5 million.

* * *

Construction of a new \$3.5-million hangar at Hopkins Airport, Cleveland, with private capital and without burden to the taxpayers, has been undertaken by Thompson-Starrett Co., A.G.C., New York. The firm will lease the facilities to the city.

(Butler—Continued from page 108)

ing to PAR, is best founded on sufficiency ratings, as well as other engineering and economic factors."

He compared sufficiency ratings to the method of judging bathing beauties—a certain number of points for various features. By that system, highways are judged for structure, safety and traffic service.

Other planks in the PAR platform were what Mr. Butler called "fair distribution of costs" and "protection of highway funds."

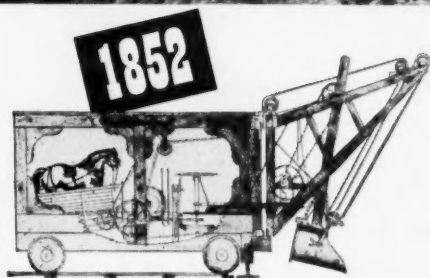
He called for action against the practice in states of diverting highway revenues to other uses. "The first and most obvious means to increase the amount of money for our highways is by doing away with diversion in those states where it is still practiced," he declared.

The repeal of federal automotive taxes and the substitution of state highway user taxes is a logical step, Mr. Butler opined.

"These taxes were put on to meet an emergency. Now, we can ask that they be taken off and shifted to meet the highway emergency in the states. The impetus of PAR can send us a long way toward getting these motor vehicle taxes back on the highways where they belong."

He appealed for support of the PAR campaign by local groups throughout the nation and asked the highway officials to work closely with them.

100 years of progress in OSGOOD shovels



OSGOOD'S 2-horse power excavator

of 100 years ago was powered by a team of horses on a treadmill inside the machine. Although crude by today's standards, this excavator embodied the four principal functions of a modern power shovel; (1) Crowd (2) Hoist (3) Swing (4) Travel. Then, as now, the name OSGOOD stood for sound engineering.

Progress in excavating equipment has been rapid during the past 100 years, but one thing has not changed. Now, as in 1852, the most efficient, most advanced earth-moving equipment is built by OSGOOD — oldest name in the power shovel and crane industry.

Through the years, OSGOOD has been noted for its unparalleled engineering leadership, and today's OSGOOD machines are unequalled in ability to increase your profits.

You owe it to your future to investigate the many modern OSGOOD features designed to increase work capacity, reduce maintenance, and cut down-time. Find out why OSGOOD shovels are setting new production records on jobs from coast to coast. Write today.



**EQUIPMENT DESIGNED WITH
YOUR PROFIT IN MIND**

The OSGOOD COMPANY

MARION, OHIO

AFFILIATED WITH THE GENERAL EXCAVATOR CO.

POWER SHOVELS, CRANES,
DRAGLINES, CLAMSHELLS,
PILE DRIVERS & HOES.
CRAWLER, TRUCK OR WHEEL
MOUNTED. DIESEL, GASOLINE
OR ELECTRIC POWERED.
CAPACITIES 1/2 TO 2 1/2 CU. YD.

Southern Superintendent Says

**"We load quicker, haul faster and
Move More Dirt!"**



INTERNATIONAL

POWER THAT PAYS



Atlanta airport expansion job is scene of new triumph for International power

When C. A. A. district headquarters decided to move to Atlanta, Georgia, the east-west runway at nearby Fulton County Airport had to be extended to 5,000-foot length.

One contractor, C. L. Rhodes of Decatur, Georgia, is doing the entire job, including cutting through a 39-foot hill and moving 350,000 cubic yards of sandy clay.

Rhodes' General Superintendent, R. N. Smith, tells how the work is going:

"We load quicker, haul faster and move more dirt with our Internationals than with any other crawlers."

"Our operators push 'em to the limit all day long to get the job done ahead of schedule. The tractors get clean filters, fuel and grease, and hard work—more hard work than is reasonable—and they take it month after month without a let down!"

That's what International owners everywhere are finding out. Find out for yourself. Ask your International Industrial Distributor for details.

**INTERNATIONAL HARVESTER COMPANY
CHICAGO 1, ILLINOIS**

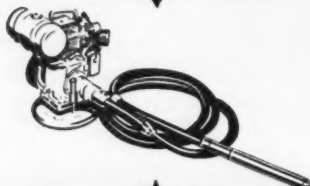


JOHNNY-ON-THE-SPOT SERVICE. A fast field service team from International's Atlanta distributor rolls up to the job site. Service like this from your International distributor is as near as your nearest telephone, to cut down downtime and keep your equipment rolling!

HIGH HEAPING FOR HIGH FLYING. Here are three of the five International crawlers that are furnishing power to extend runways at Fulton County Airport to increase the field's traffic potential.



YOU GET VIBRO-PLUS



WITH **VIBRO-PLUS** INTERNAL VIBRATORS

... even "no slump"
concrete flows easily!

Users call Vibro-Plus the most efficient of all internal vibrators. That's because its patented **ROLLGEAR®** Vibrating head steps up the 3600 RPM shaft speed to 11,000 to 15,000 VPM—does a more effective job of consolidation—with these *plus-values*...

- Astonishingly long service from shafts
- Easier lubrication (grease the shaft in 15 seconds, even while running—the head needs no lubrication ever)
- Lowest maintenance cost
- Handles the stiffest mix with ease
- 6 months guarantee

Write for complete facts and name of nearest distributor.

*Reg. U. S. Pat. Off.

TYPE MRSD—Gasoline driven.

Furnished with 2½ or 4½ HP Wisconsin or Briggs & Stratton air-cooled engine on 360° swivel base, with foolproof snap coupling for 20 or 30 ft. flexible shaft. No V-belt, no clutch, no gears. Rollgear vibrator head and shaft interchangeable for electric or pneumatic power if desired. Available with 1¾", 2¾", 3¾" and 4" diameter heads. Grinding attachments available.



VIBRO-PLUS
PRODUCTS, INC.

54-11 QUEENS BOULEVARD
WOODSIDE, L. I., NEW YORK

INDUSTRY RELATIONS

25,000 Attendance Is Forecast at Centennial of Engineering

- Inspired by 100th Anniversary of A.S.C.E.
- Construction Division to Meet with A.G.C.

» THE GREATEST assembly of engineers in history will take place during the Centennial of Engineering Convocation in Chicago Sept. 3-13.

An estimated attendance of more than 25,000 will represent 50 engineering organizations in the United States and other countries. In addition, more than 40 engineering groups will conduct programs of their own in Chicago during the period.

This Centennial of Engineering is inspired by the one hundredth anniversary of the American Society of Civil Engineers.

Several members of The Associated General Contractors of America will participate in the Sept. 3-5 program of the Construction Division of the A.S.C.E., now the largest division of the society.

On the first day there will be a joint luncheon and meeting of the Construction Division and the A.G.C.

Speaker at the joint luncheon will be H. E. Foreman, A.G.C. managing director, on the subject, "Development of the Construction Industry and the Contract Method in the United States."

During the afternoon joint meeting, the speakers will be A.G.C. Past President Dwight W. Winkelman, D. W. Winkelman Co., Syracuse, N. Y., on, "Construction—A Growing Field for the Civil Engineer."

Lester C. Rogers, Bates & Rogers Construction Corp., Chicago, a former chairman of the A.G.C. Labor Committee, "Management-Labor Relations in the Construction Industry."

E. R. Higgins, engineer, The Surety Association of America, New York, "The Contract Bond—An Essential to the Contractor."

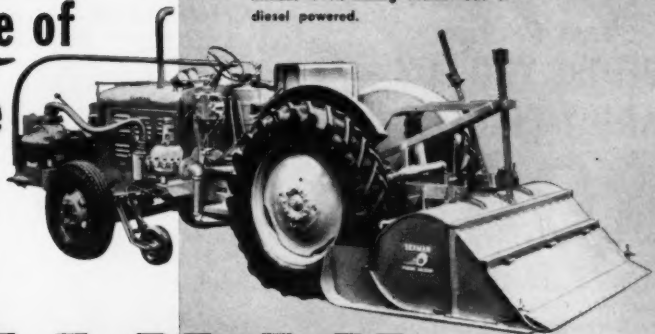
At a morning joint session with the Highway Division A. N. Carter, manager, A.G.C. Highway Contractors'



Arthur S. Horner, center, A. S. Horner Construction Co., Denver, and president, The Associated General Contractors of America, confers at the summer convention of the American Society of Civil Engineers with Carlton S. Proctor, of Moran, Proctor, Freeman and Mueser, New York consultants and A.S.C.E. president, left, and Alfred J. Ryan, of A. J. Ryan & Associates, Denver consultants, who was general chairman of the convention. Mr. Horner brought the greetings of the A.G.C. and spoke of the benefits of the cooperative work being done by the two organizations.

Why every type of stabilized base is stronger when mixed with the **SEAMAN**

The SEAMAN Self-Propelled PULVI-MIXER. 7 ft. mixing width. Gas or diesel powered.



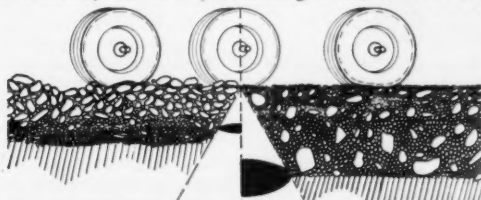
There's a very good reason why SEAMAN-mixed bases carry heavier traffic loads — and carry them longer with less maintenance. For example, take any stabilization which employs gravel. Trucking gravel to the job and especially the subsequent blading causes "segregation," — in other words, the fines sift through to the bottom — which creates an inherently unstable condition.

The SEAMAN PULVI-MIXER completely corrects segregation by *blending* and proportioning the coarse and fines equally throughout the full depth of the treatment — and at the same time thoroughly mixes-in whatever type of binder is employed. All voids are filled with the fines so that after compaction the finished stabilization is uniform and of exceptionally high density.

And if the material has previously been shaped to grade and finished crown the SEAMAN leaves the mix ready for immediate compaction.

This basic mixing action of the SEAMAN builds a stronger, denser, more weather resistant base with every material — from soil or sand to pit-run gravel.

Put a SEAMAN to work on your job — now. And for ever after, you'll do *all* your mixing with the SEAMAN.



The unstabilized aggregate (left above) tends to move to the surface, the fines to the bottom. Thus the material becomes loose and rough under traffic regardless of binders that may be employed unless mixed-in with the SEAMAN.

The SEAMAN stabilized aggregates (right above) form a firmly knit base essential for high load-bearing characteristics. Naturally, binders mixed-in with the SEAMAN further improve the quality.

(Below) In SEAMAN-stabilized aggregate base all stones are securely locked and anchored — a basic requirement regardless of binder.



(Above) Sand-clay stabilization is stronger, more economical with the SEAMAN MIXER.

SEAMAN MOTORS, INC.

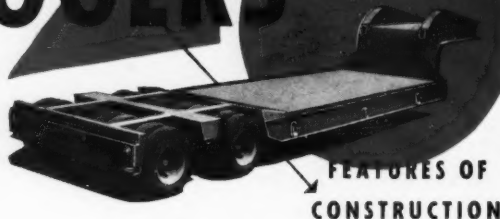
276 N. 23th ST.

MILWAUKEE 3, WISCONSIN

"EYE" BEFORE YOU BUY AND YOU'LL CHOOSE A ROGERS

TRAILER SPECIFICATIONS

• 100,000 lb. capacity
• 100,000 lb. capacity
• 100,000 lb. capacity
• 100,000 lb. capacity
• 100,000 lb. capacity
• 100,000 lb. capacity
• 100,000 lb. capacity
• 100,000 lb. capacity



Compare Rogers trailer specifications with others and study Rogers special features of construction. You're certain to be impressed.

Much equipment included with Rogers trailers is considered extra in other makes. In Rogers to yourself, consider every detail of the trailer you buy... you'll choose a ROGERS.



To the best of our knowledge, only Rogers uses alloy steel in the main carrying members of the frame. This is your insurance against the possibility of maintenance and load damage.

YOU GET MORE
FOR YOUR MONEY

in a
**ROGERS
TRAILER**

EXPERIENCE
builds 'em



PERFORMANCE
sells 'em

ROGERS BROS. CORP.
ALBION, PENNA.

223 ORCHARD STREET

Export Office: 50 Church St., N. Y. 7, N. Y.
Cable Address: "Brosicites"



"ROGERS I BEAM OR GIRDER TRAILER"

INDUSTRY RELATIONS

Division, will speak on "The Influence of Modern Equipment on Highway Construction."

Other speakers scheduled for sessions of the Construction Division are Charles M. Noble, New Jersey Turnpike Authority; Roy E. Jorgesen, National Highway Users Conference; W. W. Bernard, city engineer, Chicago; B. E. Hull, Texas Pipeline Co.; M. M. Upson, Raymond Concrete Pile Co.; Francis Donaldson, Mason & Hanger Corp.; H. H. Everist, Western Contracting Corp.; J. H. Terteling, J. H. Terteling & Sons, Inc.; L. N. McClellan and K. B. Keener, Bureau of Reclamation; W. W. Wamaker, Orinoco Mining Co.; Harvey Slocum, Ozark Dam Constructors; and Glenn W. Woodruff, consulting engineer, Los Angeles.

Headquarters hotel for the Construction Division will be the LaSalle Hotel, where the sessions and luncheon will be held. A.S.C.E. headquarters has set aside a block of rooms for construction people who plan to attend. It is recommended that persons planning to attend make their reservations in advance, and make mention of the Centennial of Engineering. A.S.C.E. headquarters will be at the Conrad Hilton Hotel.

The mid-year meeting of the A.G.C. Governing and Advisory Boards will be held Sept. 8-10 in White Sulphur Springs, W. Va. A number of A.G.C. members are expected to attend the A.S.C.E. meeting on their way to or from White Sulphur Springs.

The basic purpose of the Centennial of Engineering is to further public understanding of the principles which have made America great, and to better the public's understanding of the engineering profession.

The 1952 annual award of the Concrete Reinforcing Steel Institute went to Arsham Amirikian, chief designing engineer, Navy Bureau of Yards and Docks, for "the advancement of reinforced concrete through new and improved design concepts" in construction methods and practices.

Most of Mr. Amirikian's work in recent years has dealt with thin shell precast concrete construction and the design of protective structures designed to withstand atomic blasts.

The award is administered by representatives of the American Concrete Institute, The Associated General Contractors of America and the American Society of Civil Engineers.

» THE BUILDING RESEARCH Advisory Board of the National Academy of Sciences on June 30 transmitted the results of a one-year study on conservation in building construction to the Defense Production Administration. The 200-page report prepared under contract for DPA contains more than 200 recommendations.

Significantly, the board stated that the seven-panel research, originally intended to emphasize conservation of critical materials during the defense

THE CONSTRUCTOR, beginning next month, will publish summaries of each of the 7 B.R.A.B. panel reports in succession.

emergency, probably "will produce a framework for long-term conservation equivalent to a guide for the general advancement of building technology."

The value of the study, the board added, "has been demonstrated before its conclusion when several government agencies used proposals in the progress reports as a basis for effecting conservation measures. Estimates of the potential savings if specific recommendations are followed show significant value far exceeding the cost of the study. On such evidence B.R.A.B. concurs with the advisory panels in favoring wide dissemination of the report for development and practical use.

DPA Comments on Report

The report was transmitted by DPA to the 20 government agencies concerned with construction and made public even before the agency had time to study it, commenting that reduction of costs in the \$5 billion yearly federal construction volume can greatly assist the defense program.

James W. Follin, chairman of the Subcommittee on Construction of DPA's Conservation Coordinating Committee, who supervised the project for the agency, said "this is the first time that a comprehensive review has been made of design and construction practices of federal construction agencies. The report has value beyond its use for federal construction and undoubtedly will have an impact on all building construction."

DPA considered the following B.R.A.B. recommendations most important to the government:

1. That federal agencies base their conservation practices on the concept

B.R.A.B. Conservation Report Significant to Building Field

- One-Year Study for DPA Contains 200 Suggestions
- Called Long-Term Guide for Technical Progress

of lowest annual cost, to be modified only when limited supplies prevent use of materials which will give lowest annual cost.

2. That some means of technical collaboration be established among the various federal construction agencies for the purpose of conserving materials and costs.

Initially, DPA said, B.R.A.B. staff members obtained information on design and construction practices from the 5 principal federal construction agencies, which appointed task groups to survey the material, which was placed before the advisory panels for their consideration.

8 Advisory Panels

The study was made by advisory panels, each assigned to a particular segment of building construction. The panels, and their chairmen were:

Building Construction Practices, William Muirhead, Wm. Muirhead Construction Co., Durham, N. C.

Building Structure, Walter Voss, Department of Building Engineering and Construction, Massachusetts Institute of Technology.

Electrical Systems, Carl F. Boester, housing consultant, Purdue University.

Heating, Ventilating and Air Conditioning, W. R. Woolrich, Dean of Engineering, University of Texas.

Space and Planning, Ralph Walker, Voorhees, Walker, Foley & Smith, New York City architects.

Space and Planning for Hospitals, Walter A. Taylor, director of research and education for the American Institute of Architects.

Structural Engineering, W. E. Reynolds, Commissioner of Public Buildings, Washington, D. C.

Plumbing, M. Allen Pond, chief of the Division of Engineering Resources, U. S. Public Health Service.

In addition to the personnel of the panels, many other outside specialists served as advisors to the various panels, including government "task units."

While recommending the widest possible dissemination of the report, B.R.A.B. members took extreme pains

to discourage use of any excerpts from the study without an "adequate" explanation of its scope and purpose, "especially where an excerpt may be misinterpreted to imply endorsement or criticism of any building material or product, or of any organization."

Concept of Report

Principal object of conservation was described as an aid in fulfilling the nation's requirements for building under any circumstances with maximum efficiency in the use of money, manpower and materials.

"Long-term conservation in a permanent building is most satisfactorily achieved through design for lowest annual cost, a value determined from the cost of producing the structure and the costs of maintaining and operating it over the number of years for which it is expected to serve a useful purpose.

"Modifications of policies for effecting long-term conservation may be necessary during national emergencies, in accordance with the nature, degree, and duration of an emergency and shortages which it causes.

"When the supply of certain materials is limited by the abnormal demands of an emergency, conservation of such materials in permanent buildings should be achieved by a combination of judicious allocation and use of scarce materials on the basis of their essentiality in parts of the structure for safety, satisfactory performance, or other criteria for long-term conservation."

The board did not necessarily approve all recommendations made by its panels, but "certifies to the competence and integrity of the panels."

The study was limited to buildings designed for use for 25 years or more, and to types built by the government including office buildings, warehouses, garages, dormitories or barracks, and hospitals.

Housing was omitted, especially single-family dwellings, because of the major differences and to avoid duplicating other research.

The board pointed out that results of the study could be utilized in

specialized research on other types such as schools or factories.

About 300 individuals participated in the advisory work, all without compensation. Panels were appointed by the National Research Council.

B.R.A.B. Recommendations

Recommendations of B.R.A.B. itself were made after review of all material developed by the panels and reports of advisors. Its salient proposals, intentionally concerned only with "broad principles of conservation," may be summarized as follows:

The government should "stimulate and aid means to consider, develop, and where acceptable adopt the conservation measures proposed through collaboration between the construction agencies of the government or by appropriate and responsible technical bodies . . ."

B.R.A.B. offered its services in carrying out this recommendation, and also in disseminating the report.

Substitute and Alternate Materials

" . . . B.R.A.B. recommends that the greatest possible latitude be permitted in the selection of alternates for each specific project. The building industry should provide designers with accurate technical data, guides, and other information to aid and broaden their selection of products and methods conducive to long-term conservation.

"During periods of shortages induced by national emergencies, the building industry and the government should collaborate to provide the designer with supplementary technical information appropriate to the solution of emergency problems in conservation."

While the board pointed out that it could not become involved with the specification of materials by trade or product names, some panels found it impossible not to consider substitutes and alternates for emergency uses.

B.R.A.B.'s advisors warned against use of "expedient" substitutes except in extreme emergencies.

Alternate methods of construction, such as steel frame vs. reinforced concrete, were not compared, the board confining itself to conservation after a method had been chosen.

Standards, Specifications, Codes

The board found that new or revised standards or regulations might provide means for conservation. It recommended:

" . . . that the federal construction agencies should join with the organizations responsible for the formulation, revision, and promulgation of standards, specifications, and codes recommended for uniform adoption in support of collaborative programs to make them into more effective tools for conservation. This program should include:

- The prompt identification of newest approved standards in each field of building technology.
- Reference of meritorious proposals requiring revision of standards to the appropriate organization(s), and measures to expedite their actions upon the proposals.
- Preparation of special conservation measures for national emergencies.
- Collaborative support for and participation in research where a need for research is demonstrated.
- Constant collaboration to effect adoption and use of standards, specifications, and codes having unified and simplified intent and meaning."

General objectives through standards were recommended in this order:

- (1) Product standards—Work for simplification and uniformity.
- (2) Engineering standards—Keep abreast of technology to the end that materials work to their greatest capacity in the structure and with greatest resultant economy.
- (3) Planning standards—Develop criteria to aid planning of buildings to accomplish their functions with maximum efficiency in use of space, materials, and building elements.
- (4) Health and safety standards—Apply in such a way that location, size, and occupancy of the building will determine the appropriate health and safety standards to be met.

The board frowned on hasty adoption of "temporary" provisions during an emergency, recommending more collaboration on standards revision and agreement on emergency measures before the emergencies occur.

Since federal specifications attain the status of standards, especially those dealing with products, B.R.A.B. urged further correlation.

Codes and Regulations

While revised standards could be simply adopted by federal agencies, private construction is subject to code limitations, which would have to incorporate revisions for a comprehensive conservation pattern.

Therefore, the advisors to B.R.A.B. agreed that many old or specialized codes restrict conservation efforts by requiring more than generally acceptable minimums.

"The organizations promulgating codes for uniform adoption are working for conservation, and their efforts should be encouraged and aided wherever possible," B.R.A.B. said.

Technical Practices

B.R.A.B. recommended: " . . . that the professions of the building industry and the federal construction agencies, separately and collectively, should recognize and foster technical proficiency and ingenuity as the greatest potentials for conservation in building construction, and should develop and employ methods of education and coordination for the continual improvement of technical practices."

To create a "favorable climate" for technical proficiency and ingenuity, the board recommended "that federal appropriation procedures and methods . . . used in selecting, compensating and supervising design and construction organizations should be revised to secure the highest possible technical proficiency and ingenuity and to provide opportunities for their exercise."

Variations in Specifications

The review produced much evidence of variations in standards and specifications of the five federal construction agencies in such items as unit space allotments, ceiling heights, construction details, occupancy and snow loads, use and acceptance of new design and construction methods, and details of equipment and layouts in heating, plumbing, and electrical systems.

Advisory panels criticized specifications for (a) complexity, (b) ambiguity, (c) unnecessary length, (d) lack of consistency and uniformity, and (e) persistence of outmoded clauses.

"Generally speaking, federal contract specifications in their present form are said to cause unnecessary costs and waste of technical manpower for firms who must use the specifications for design, bidding or construction," B.R.A.B. said. "Because of the volume of government construction, 'minor' differences in specifications exaggerate themselves in actual use.

"Apparently, further effort by the

government to improve, simplify and unify federal specifications will meet with broad approval and should be done in the interest of conservation."

Interagency Body Recommended

The board's advisors suggested an interagency technical body to operate "with the advice of an independent, impartial technical agency."

The panels reported design, engineering and specifications sometimes determined unilaterally by other than technical personnel, and less coordination when needed most in agencies managing the greatest volume of work in emergencies.

At present, the panels concluded, the agencies have no means for collaborative evaluation of the performance of federal buildings, for appraisal of new products, or adoption of new design or construction principles.

Concerning shortage of technical manpower complained about by the federal agencies, the panels suggested training programs, exchange of ideas and other means to improve the proficiency of the personnel to offset the shortage.

They also reported, B.R.A.B. said, that "The best performance of contracts, from bidding to completion, is often handicapped by uncoordinated plans, complex specifications, bidding procedures, procedures in making changes during construction, and the lack of competence of some supervisors and inspectors. Conservation of cost, of technical manpower and labor would be benefitted by review of the various procedures involved."

Emergency Management

The panels also noted that the pattern has been for creation of new agencies to manage construction to meet emergencies which sometimes cause hasty or extreme measures, and recommended government-industry teamwork to prepare for them.

They recommended that the agency charged with responsibility for conservation in construction provide the industry with frequent and direct information concerning the exact kind and degree of material shortages, furnish guides for conservation in design, expedite completion of revisions of standards by technical bodies, insure sound policies on allocations of materials based on their essentiality in the structure, and insure uniform restrictions on critical materials, "affecting government and

civilian construction alike, with clear reasons for the few exceptions necessary."

Opportunities for Government

B.R.A.B. concluded that the government has opportunities to provide "exemplary leadership" in building conservation by establishing a "model" program of collaboration for unified practices and advancement of building technology, fostering ingenuity in design and engineering, producing basic data on performance and definition of research problems, and providing means and leadership for building research and utilization of its results in government building.

The board recommended:

"1. The establishment of uniform policies for conservation in federal construction suitable for both normal and emergency circumstances . . .

"2. . . . a program of revision, simplification, and coordination of technical standards, design practice, specifications, programming data, and other criteria for federal building construction.

"3. Continual cooperation with recognized technical bodies to advance technical standards and coordinate federal standards with recognized national standards.

"4. The adoption of measures to insure the proficiency of technical personnel in the federal construction agencies, including technical personnel in the design staffs, field offices, construction supervision and building maintenance, through recruitment, training, means for exchange of technical ideas, adequate compensation, and advancement.

"5. The formulation of measures for closer collaboration between central and field offices for effecting conservation measures, especially during emergencies.

"6. The improvement of contractual and other relationships with the building professions to derive the maximum capabilities for conservation from architects, engineers and building contractors employed on federal construction.

"7. The development of a program to foster ingenuity in the design of federal buildings . . ."

Coordination and Funds

The board also recommended:

"The federal construction agencies should support and maintain coordinated research for the solution of technical problems arising from the

The building conservation report is B.R.A.B.'s biggest project since its inception in 1948. Earlier projects included conferences on climatology, exterior non-load-bearing walls, and atomic energy design. Like the long-established Highway Research Board, it is a unit of the



Mr. Scheick

National Research Council of the National Academy of Sciences, and attempts to coordinate, correlate and stimulate research in the building industry. In 1949, William H. Scheick, coordinator of the Small Homes Council at the University of Illinois, was appointed executive director. The board's operations are financed by industry.

Two A.G.C. representatives are on the Board: William Muirhead, Wm. Muirhead Construction Co., Durham, N. C., A.G.C. secretary-treasurer and past president, and E. J. Wheeler, president, Frank Messer & Sons, Inc., Cincinnati, a national director of the association.

design, operation, and maintenance of federal buildings and procedures for the trial and adoption of research results, to the end that federal funds for construction be expended more effectively.

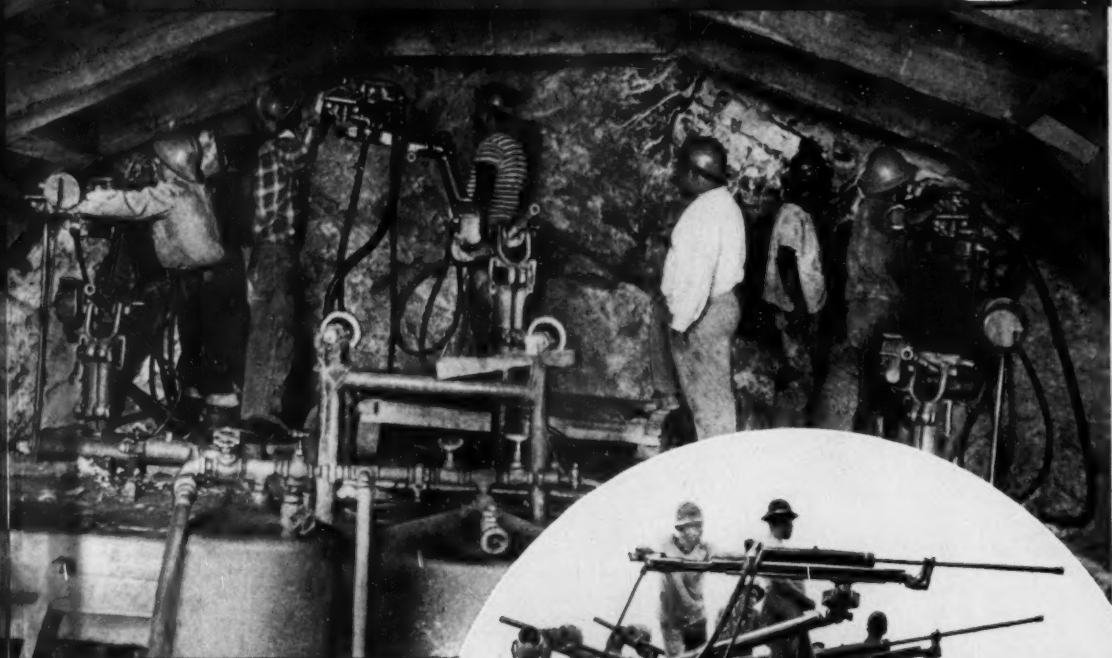
"The government should form an interagency mechanism for collaboration by the federal construction agencies, to establish and maintain the conservation program.

"Interagency collaboration should be at both technical and administrative levels, the former to perform technical functions, the latter to insure the effectiveness of the technical program through appropriate administrative policies and procedures.

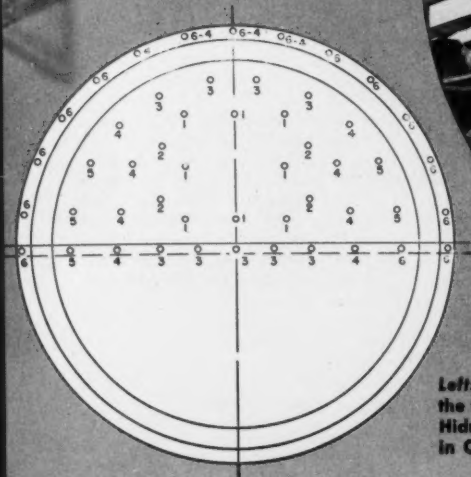
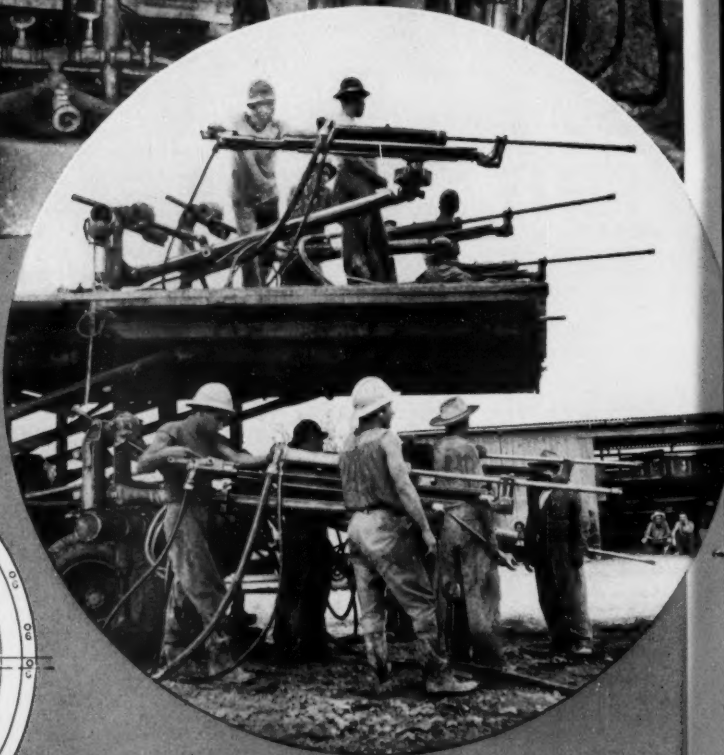
"This collaboration should extend to professional societies, technical bodies, research institutions, and other elements of the building industry concerned with the advancement of building technology, including the National Research Council.

"Federal agencies should be authorized to make funds available on a continuing basis for the accomplishment of the objectives set forth in these recommendations."

Tunneling



Right: Six-drill jumbo with Le Roi-CLVELAND power feed drifters and air-motor booms on a 1 1/2-ton truck. 1 1/4" round-lug steel and 2" carbide bits. Air supply — two 500 cfm compressors.



Left: Standard drill pattern for 50-hole round. Typical of the top-heading and bench method used by Construcciones Hidraulicas, S.A. in driving three 27'-bore circular tunnels in Obregon, Sonora, Mexico.

costs reduced!

with Le Roi-CLEVELAND Drifters and Jumbo Booms

**You spot your holes easier —
get less overbreak!**

**You get higher drilling speeds,
for faster cycles!**

Better fragmentation! More footage per shift! That's the pay-off, when you use Le Roi-CLEVELAND Jumbo Booms and power-feed Drifters in your rock headings. The pay-off that means lower costs on any rock-drilling or tunneling job.

- Le Roi-CLEVELAND Jumbos are versatile. Air-motor powered booms let you spot and space your holes quickly and easily for the most efficient fragmentation. Their greater flexibility lets you keep the tunnel bore close to pay line — with little overbreak or underbreak.

- Rigid, non-slip set-up feature of Le Roi-CLEVELAND Jumbo Booms keeps drifters in line, prevents steel binding, saves wear and tear on chucks.

- Strong rotation of Le Roi-CLEVELAND Drifters — plus snappy, powerful force of blow — give you unexcelled drilling speed. Graduated feed throttle lets you adjust pressure to get maximum footage in any type of rock formation. Fast feed travel makes steel-changing quick and easy.

Get more drilling done every shift. Save the money overbreak steals from you. Put the versatility of Le Roi-CLEVELAND Jumbo Booms and the dependable drilling speed of Le Roi-CLEVELAND Drifters to work for you. Write today for complete information.



LE ROI COMPANY

CLEVELAND ROCK DRILL DIVISION

12500 Berea Road, Cleveland 11, Ohio

Plants: Milwaukee, Cleveland and Greenwich, Ohio



The seamy rock in one tunnel at Obregon required 9 sections of timber every 3'. To save time on timbering, the contractors used the Le Roi-CLEVELAND air-motor powered jumbo booms to raise the sections of timber from the top deck of the jumbo to the roof.



Tunnel No. 1 at Obregon is 2411' long; tunnel No. 2, 1378'; tunnel No. 3, 1850'. Tunnel bores were so regular one observer said they must have been cut with a knife.



Photos by Eugene Miller

One of the typical 3-bedroom houses built by Weaver-Loving for rent to Fort Bragg officers and their families.

Wherry Housing Projects In Full Swing

» **MILITARY HOUSING CONSTRUCTION**, stimulated by the Wherry Housing Act, continues apace at Army and Air Force Bases throughout the nation. About 80,000 units with a replacement value of \$720 million have been planned for—50,000 of which are completed or in processing thus far under the program.

The uniqueness of the arrangement is that the contractor builds, owns and operates the rental units for servicemen and government employees on military bases. The concept of privately financed, privately built and privately maintained homes on military bases is relatively new. During World War II, the contractors' interest in such a project terminated at its completion.

He may continue management of the rental units after construction or put that function in the hands of a management corporation.

The Wherry Act as recently amended, provides that builders (called "sponsors") may bid on a specified number of units of specified

design in competition with others. The low bidder is awarded the contract to build and rent the homes. The rental schedule he may set up is based upon his bid, with a maximum allowance of 6½% net profit on investment.

The Federal Housing Administration insures up to 90% of the replacement cost of the project. The contractor is required to make a bid deposit of 2% of the bid price (within the minimum-maximum range of \$5,000 to \$25,000).

Before recent amendments to the act, contractors were asked to submit designs as well as bids on the number of units to be built. Now, base engineers, in collaboration with local architect consultants, draw up the designs on which all contractors bid.

Ketell Construction Co., A.G.C., Portland, Oreg., has begun construction on a \$4-million Wherry housing project at Dugway, Utah, 80 mi. from Salt Lake City. The contractor will put up 400 homes and utilities and lease them to government and army personnel at the Dugway Proving Ground.

First Wherry Apartment House

Construction of an 8-story efficiency apartment house, the first of its kind to be built under the Wherry Housing Act, is now under way at Fort Knox, Ky.

The \$2-million project, as is provided under the Act, will be privately financed and owned for rental to military and government personnel. It is of reinforced concrete and will contain 180 efficiency units and 20 one-bedroom units.

"The apartments will be complete with utilities, silverware, china and linen—all furnished by the builder. All a family will need to set up housekeeping is a sack of groceries," Lt. Col. Campbell Newman, special projects officer, reports.

There will be two elevators in the fireproof building and a concrete parking lot of 300 cars. Units will rent for about \$85. The post has 1,500 other Wherry units.

The Federal Housing Administration estimated the replacement value of the project and made commitments to insure a loan of \$3,564,000.

At Edwards Air Force Base, Lake Muroc, Calif., the Hal B. Hayes Construction Co., A.G.C., Pasadena, Calif., is building 500 homes under the housing act. Financed entirely with private capital, the venture is part of a continuous program involving \$25-million-worth of housing. The Hayes firm recently completed the initial project of 550 houses—one which has been

(Continued on page 125)

An aerial view of the Fort Bragg, N. C., project—one of the larger Wherry jobs—1,200 apartment units and 800 houses.





UNDER WAY...

Penrose Avenue Bridge, Philadelphia

Construction view of the 56 Monotube-supported piers for this important new bridge over the Schuylkill River—a joint project of the City of Philadelphia and the State of Pennsylvania. Design Engineers: Modjeski and Masters; General Contractor: Foley Brothers, Inc.; Pile Driving Contractor: Fehlbauer Pile Co.

MONOTUBES...

best for holding structures up —and holding costs down!

ALMOST 38 miles of Monotube piles, from 26 to 82 feet long, support the 56 piers (above) for the new Penrose Avenue Bridge, Philadelphia. It's one of the many types of construction where Monotubes are again and again the preferred choice. For with Monotubes, engineers and contractors always stand to gain important advantages...

First, Monotube taper-flute, cold-rolled construction means *extra* strength, extra structural value that can be utilized

in designing for heavy loads, often requiring fewer piles. Moreover, their tapered tubular design makes inspection before concreting rapid and easy for positive assurance of condition after installation.

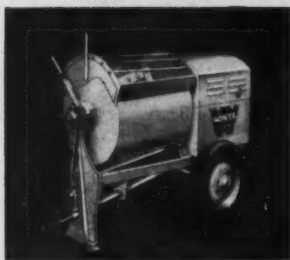
Secondly, you simply can't match light weight Monotubes for ease of handling, locating and driving... nor for simplified field splicing with fast cut-off and minimum waste.

On job after job it adds up to sound foundations with a new low in installation time and cost. Get all the facts on why these gains are possible with Monotubes. Just write to The Union Metal Manufacturing Co., Canton 5, Ohio.

UNION METAL

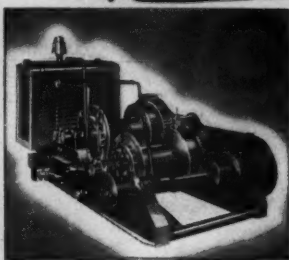
Monotube Foundation Piles

AMERICA'S *Finest* LINE



PLASTER & MORTAR

MIXERS



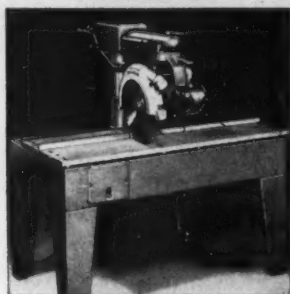
HOT AIR

MACHINES



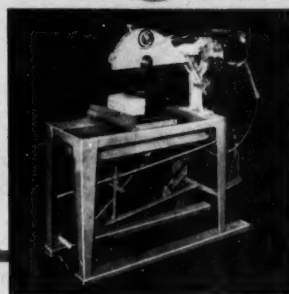
CONCRETE

MIXERS



RADIAL ARM

SAWS

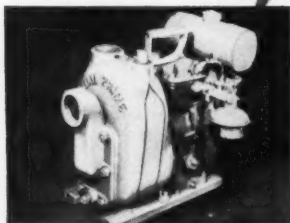


MASONRY

SAWS

TOP-QUALITY
CONSTRUCTION
EQUIPMENT

THERE'S A CMC PUMP FOR EVERY CONSTRUCTION NEED



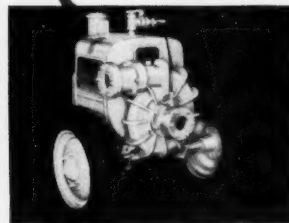
DUAL PRIMING

PUMPS



DIAPHRAGM

SALES & SERVICE



PRESSURE FLO

PUMPS

By LEADING EQUIPMENT DISTRIBUTORS
FROM COAST TO COAST

CONSTRUCTION MACHINERY COMPANIES • WATERLOO, IOWA

(Continued from page 122)

acclaimed an outstanding military housing project for its methods of operations. The land is owned by the federal government. The Air Force secured a certificate of necessity for the homes, which Hayes will lease to government employees.

Hayes, under the same arrangement, has gone to work on another 500 homes at the Naval Ordnance Test Station at Inyokern, Calif. The base is undergoing a \$20-million expansion program, of which the housing is a substantial portion.

Another mammoth housing project, at Fort Bragg, N. C., is nearing completion. There the W. H. Weaver Construction Co., Greensboro, and T. A. Loving & Co., Goldsboro, both A.G.C. members, have built 1,200 two-bedroom apartment units and 800 private residences under the act.

As of the first of April, 17,192 Air Force families were lodged in Wherry-built units. The total number constructed at that time was 26,331, and other statistics determined then were: (1) The average replacement cost per unit was \$9,238.68, (2) the average mortgage per unit was \$8,170.21, (3) the average monthly gross rent per unit was \$78.02, and (4) the average size per unit was 967 sq. ft.

Housing on Army and Air Force installations has been deemed inadequate for some time. Recently the Air Force found that only 21 of its 154 stateside installations have "adequate family housing readily available at reasonable rents" for both officers and airmen. Commanders of a number of bases have requested Wherry housing and plans are in the making or in approval channels for 300 to 500-unit projects at many installations.

The Navy has a total program of 77 projects involving 26,428 units. About 10,124 of those units are under construction now or have been completed. The greater proportion remaining are in the planning, are about to be awarded or are awaiting FHA commitments. Their average replacement cost is generally about \$8,500 per unit.

Some of the larger Navy projects include 1,000 units at the Patuxent River Naval Air Station, Md., 1,245 units at the Naval Training Center, Bainbridge, Md., 1,054 units at Camp Lejeune, N. C., 1,000 units at Key West Naval Base, Fla., and 1,421 units at the Marine Corps Air Station, Cherry Point, N. C.

Industry to Universally Adopt Modular Method "in Due Time"

- Lag Attributed to Slow Proof of Cost Savings
- Producers' Council Spends \$100,000 on Promotion

By A. Naughton Lane

President, The Producers' Council, Inc.

» IF IT IS TRUE that money speaks louder than words, there is great significance in the fact that various manufacturers of building products have spent over \$100,000 through the Producers' Council in the last 10 years promoting the development and acceptance of modular coordination and modular design.

The brick industry and the manufacturers of other products such as metal windows and wood windows have spent many, many more thousands coordinating the dimensions of their products so as to expedite the general adoption of modular construction.

Saves Materials and Time

Why? Because they see the cold fact behind the convincing theory that there is bound to be less waste of materials and less time required on the job site when the dimensions of materials have been coordinated on the modular basis and when structures have been designed to take advantage of the ensuing savings.

If you've ever tried to raise a fund of \$100,000 from a group of building product manufacturers for any purpose, you know how convincing and practical you have to be. Those manufacturers who have been supporting modular construction don't just hope it is a good idea; they know it is.

The whole trouble, the basic reason why modular construction has made such modest progress and won't believe so gradually is because no one has yet been able to prove in cold dollars and cents that the modular process will save exactly so much money—for the manufacturer, for the architect, and for the contractor. The facts are too hard to prove conclusively, just as it's difficult to prove that virtue always pays.

The extent to which modular construction

already has been wholeheartedly accepted by many architects, including most of the members of the Board of Directors of the American Institute of Architects, and by quite a few contractors demonstrates that it is here to stay and that it will be universally adopted throughout the building industry in due time.

"Adjustment Period" Required

It is only natural that some who have tried it have met with problems which have counteracted some of the anticipated savings in time and labor, because every advancement of this sort involves a period of adjustment and experience before it begins to work smoothly for all concerned.

It is natural, too, that some have been reluctant even to make their first beginnings with modular design and construction, because until experience has been gained it is easier to use the old methods to which one is accustomed.

The important facts to bear in mind are: (1) that modular design can't possibly take more time, once the architect becomes accustomed to it, and is certain to bring some time savings; (2) it can't increase the materials cost because there is bound to be less waste of materials; (3) it can't increase the cost of labor in on-site construction, because less time is required for cutting and fitting and patching.

Producers Being Surveyed

Once the period of adjustment is passed, savings are bound to come, depending on how skillfully the idea is executed. In other words, you can't lose with modular construction no matter how many non-modular materials are used, and you are sure to save something—the amount of the savings depending on experience, type of materials being used, and so on.

That is the considered view of the Producers' Council so far as the overall aspects of modular construction are concerned. As for the detailed prob-



Mr. Lane

lems which arise in the use of the various materials which are produced in modular sizes, we are asking several of the associations which represent the manufacturers of modular products to present their answers and viewpoints.

In summary, we feel that modular construction has made healthy progress. We feel that the discussion pro-

and con does a lot to make the idea better known and better understood. And we feel confident that there will be a lot more modular construction a year from now than there is today. Remember: you may not realize all the savings right at the start, but you can't possibly lose by going after them.



In floor fill in roof fill

Permalite expanded perlite aggregate gives you concrete with only $\frac{1}{2}$ to $\frac{1}{3}$ the weight of sanded concrete. The great saving in deadweight can not only sharply reduce requirements in structural steel but also cut construction time and costs.

Permalite offers you consistent, rigidly controlled quality on every job, first bag to last. In its weight class, Permalite mixes require less water, have less drying shrinkage, higher strength, less absorption and have greater resistance to freezing and thawing.

Leading architects are specifying Permalite for all types of construction—industrial buildings, schools, hospitals, defense housing and military buildings. For full facts and specification data see your Sweet's File or send for new Permalite brochure; Great Lakes Carbon Corporation, 18 East 48th St., New York 17, N. Y., Dept. 15-6.

PERMALITE

lightweight aggregate

FILLS THE BILL

- ✓ Reduces deadload
- ✓ Cuts steel needs
- ✓ Lowers heat loss
- ✓ Fire resistant
- ✓ Availability unlimited
- ✓ Quality controlled
- ✓ Perlite Institute approval

MAKES BETTER PLASTER, TOO
U.L. approved Permalite/plaster carries maximum fire ratings up to 4 hours—does a faster, easier job of fireproofing structural steel. On walls and ceilings, it assures lighter, more crack-resistant base coats.

Permalite®

**THE LEADING
PERLITE
AGGREGATE**

A Building Product of Great Lakes Carbon Corporation and its Exclusive Permalite Licensees

EDITOR'S NOTE: This article was contributed by Mr. A. Naughton Lane, president of the Producers' Council and vice president of the Monarch Metal Weatherstrip Corp., St. Louis, Mo.

THE CONSTRUCTOR in November and December 1951 published articles based on answers to a questionnaire on modular coordination sent to A.G.C. building contractors and chapters by the association's Building Contractors' Division.

Details of contractors' experiences on modular jobs were asked after practical difficulties being encountered at the present time in use of the method were revealed at recent A.G.C. meetings and in discussions by both architects and contractors at meetings of the Joint Cooperative Committee of the A.I.A. and A.G.C.

Generally, contractors reported a number of "headaches" and added expense when both standard and modular design and both sizes of materials were used on the same job. A few reported unqualified endorsement of the method. Principal "gripes" of interest to architects were reports of their failure in many cases to follow through on modular design, resulting in much cutting of masonry and other difficulties. Regarding materials, many respondents reported modular sizes of many types not widely stocked, and some noted varying dimensions in "modular" masonry products.

While most reporting contractors noted such difficulties now, most also indicated belief that the method would be of great value in time, when all concerned have a full understanding of the system and when all materials are available in modular sizes.

An article by William Demarest, Jr., "Modular Coordination Secretary," based on comments of architects, appeared in the May 1952 CONSTRUCTOR.

THE CONSTRUCTOR will devote space in future issues for any valuable comments by all concerned whose experiences can contribute useful information on the method.

THE CONSTRUCTOR expects to publish in an early issue comments of manufacturers on details of difficulties encountered in the use of their modular products.

How U. S. Rubber belt engineers cut installation costs



View of 24" U. S. Giant Conveyor Belt carrying aggregate from mixing hopper to loading hopper in plant No. 2, Builders Supply Co., Houston, Texas.



Junction between cross belt and incline belt. They convey the aggregate to concrete mixing tower, which in turn supplies the waiting trucks.

PRODUCT OF



In a new concrete mix plant, original plans called for the installation of a 5-ply, 36 oz. duck conveyor belt to handle the aggregates. But United States Rubber Company engineers pointed out that their 4-ply, 42 oz. duck belt would not only cost less, but would be more flexible crosswise to trough, would train more easily and provide high-tensile strength as well. This 1,275-foot, 4-ply U. S. Giant Conveyor Belt was installed. It travels 300' per minute and delivers 294 tons per hour.

This is another instance of why it pays to consult "U.S." engineers before going ahead on a conveyor belt problem. Remember that they are backed by a wealth of experience and vast research facilities. Finally, they will work with your engineers and with the designers of conveyor equipment—a 3-Way Engineering teamwork that always pays off in higher output at lower cost. Write to address below.

UNITED STATES RUBBER COMPANY
MECHANICAL GOODS DIVISION • ROCKEFELLER CENTER, NEW YORK 20, N. Y.

Whose responsibility ? ? ?



2-HOUR +
FIREPROOF RATED FLOOR

Monolithic CONCRETE
JOIST CONSTRUCTION



Ordinary Wood
Floor Construction

ZERO-Combustibility Rating



Complete stock of forms in many locations

CONCRETE JOIST FLOOR CONSTRUCTION is economical, durable, fireproof and highly resistant to wind, shock and quakes. Design and specify Concrete Joist Floor Construction on your next job.

Gateway
Erectors, Inc.
3233 West Grand Chicago 51, Ill.

GATEWAY ENGINEERING CO. of Md. GATEWAY COMPANY of Ohio
BALTIMORE 18, MARYLAND CINCINNATI 23, OHIO
2003 Levegrave Avenue 2836 Colerain Avenue

» A DIRECTORY of modular-sized building products is planned for the coming year by the "Modular Coordination Office" at headquarters of the American Institute of Architects.

William Demarest, Jr., secretary of the program, reported plans for the directory to the Joint Committee of the A.I.A. and the Producers' Council. Plans also have been discussed with the Joint Cooperative Committee of The Associated General Contractors of America and the A.I.A.

"Impressive Progress" Claimed

"In the initial two years just completed, impressive progress has been made in acquainting architects with the benefits to be gained through dimensioning by the modular method," Mr. Demarest asserted. "The primary emphasis can now be placed upon the serving of architects and draftsmen who are changing from the old, traditional dimensioning habits and taking up the use of the modular system, which coordinates building dimensions with stock materials sizes on the basis of the 4-in. module."

He said growing acceptance of the method by architects and manufac-

Modular Products Directory Being Planned

- To Be Distributed to Architects, Contractors and Designers

turers "has become apparent."

A booklet already has been prepared demonstrating sample modular working drawings which were selected to show how to derive the most benefit from the system. To it will be appended a directory of products, listing

firms geographically which make building materials available in stock sizes suitable for modular-dimensioned construction.

It will be distributed at no charge to architects, contractors and others in the industry.



New Scruggs,
Vandervoort, Barney
department store,
Clayton, Mo.

Architect:
Harris Armstrong.

Consulting Engineer:
Neil J. Campbell.

Contractor: Gamble
Construction Co.

Modular Photo Education

A set of projection slides illustrating good construction practices and demonstrating advantages of the modular coordination system has been prepared by the Housing Research Division of the Housing and Home Finance Agency.

The initial group of slides will be ready this summer for distribution at a "nominal charge" to architectural schools throughout the country for use in the fall terms.

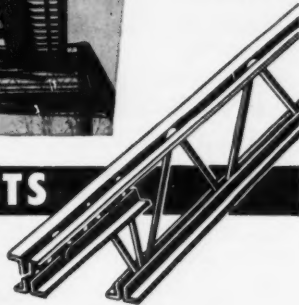
Content of the slides was explained last month to a meeting in New York City of the Associated Collegiate Schools of Architecture. The slide set was planned to complement the slide-sets on building products prepared under the auspices of the A.C.S.A. under the joint sponsorship of the American Institute of Architects and the Producers Council. It will show how dimensions on drawings are coordinated with materials.

The slides were prepared for the HHFA by Kenneth J. Heidrich of State College, Pennsylvania. Like the series of A.C.S.A. slides being built up by U. S. schools of architecture, the new set includes an explanatory text with each slide.

LACLEDE JOISTS

for

STRENGTH... ECONOMY!



For lightweight, functional design, builders, architects and engineers wisely specify these Laclede Steel Products for floor and roof construction.

WELDED WIRE FABRIC • FORM & TIE WIRE
MULTI-RIB REINFORCING BARS • JOISTS
CORRUGATED STEEL CENTERING



LACLEDE STEEL COMPANY

Producers of Steel
for Builders and Contractors

St. Louis, Mo.

15 Years of PROGRESS

SMITH LEADERSHIP REVOLUTIONIZED
THE TRUCK MIXER INDUSTRY



An early model Smith-Mobile working on Greendale Housing Project near the city of Milwaukee, in 1937.

SMITH-MOBILE Early Model Built in 1937

1st in the Field

FIRST high discharge truck mixer.

FIRST to eliminate the need for hoist or ramp.

FIRST with a controlled discharge.

FIRST to provide visible mixing.

FIRST with feed chute charging.

FIRST to provide for shrinking and mixing of batch as materials enter drum.

FIRST to introduce water through the feed opening.

FIRST to provide water injection through both ends of drum.

FIRST steep distributing spout, especially ideal for dry concrete.

FIRST to announce fluid drive as standard equipment.

FIRST with LOADLIMIT models.

1952 Model SMITH-MOBILE

You want the very finest truck mixer that money can buy. You get it in the Smith-Mobile.

Rome wasn't built in a day. Nor was the modern Smith-Mobile evolved overnight. It was designed around basic Smith inventions and patents long before anybody else built high discharge truck mixers. Important refinements were added from year to year, all based on intensive research and practical experience gained in the field.

Today, Smith-Mobile continues, as always, to be the acknowledged leader in the industry. Buy Smith-Mobile and be sure you are getting the best. Five sizes available. Standard or LOADLIMIT models.

Write for descriptive literature.

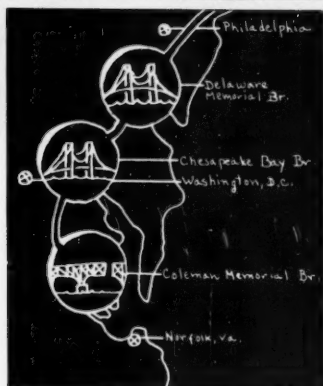
THE T. L. SMITH COMPANY, 2853 N. 32nd Street, Milwaukee 45, Wis.

New, 6 1/2 yard standard Smith-Mobile.
Also available in LOADLIMIT model.



SMITH MOBILE

The Original High Discharge Truck Mixer and Agitator



Three New Bridges Crack Bottlenecks On East Coast Superhighway Systems

The Delaware River structure boasts a 2,150-ft. suspension span (the world's sixth longest) between 427-ft. high towers. It carries four lanes of traffic on a roadbed 175 ft. above the surface of the river.

At the southern end of the New Jersey Turnpike, the Delaware Memorial Bridge leaps the Delaware River. The 2-mi. long crossing cost \$44 million by the time it was completed last August. Within the first 24 hours, over 20,000 motorists paid the toll to use the facility, thus saving themselves about two hours traveling time on the 250-mi. trip between Washington, D.C., and New York City.

The Delaware Memorial Bridge, the Chesapeake Bay Bridge and the Coleman Memorial Bridge (Yorktown, Va.) are vital links on north-south routes along the East Coast.

» BRIDGE BUILDERS have been having a heyday on the East Coast during the last few years. Now, major assignments are being completed in rapid succession and bridge dedications are keeping governors of the Middle Atlantic States busy turning out flowery praises for the engineers, contractors and public officials responsible for the construction. The Delaware Memorial and Coleman Memorial bridges have been completed and the Chesapeake Bay Bridge is scheduled for opening this month.

The new bridges, although costing millions of dollars, are being hailed with joy by eastern commuters. The Atlantic seaboard has been a traveler's nightmare. Direct routes have been stymied by some of the nation's largest cities, bays penetrating deep inland, and rivers at their widest points—the outlets. Heretofore, highways have skirted the bays or halted at the water's edge to let ferry boats carry the traffic across. Anyone who has not waited his turn in a 6-mi. long line for two hours or so on a hot Sunday afternoon while the ferries plied slowly

back and forth cannot appreciate the interest with which Easterners have watched the progress of these bridges.

The new crossings are making complete new traffic patterns possible—including by-passes around such cities as Baltimore, Washington, Philadelphia and Wilmington. They are vital links on superhighways which have been balked at the waterways.

Now, a New Yorker heading south can ease out onto the just-completed New Jersey Turnpike, which will, without a stop, shunt him 110 mi. through a highly-congested area. There at the mile-wide Delaware River he no longer must wait for a ferry to get across. The new Delaware Memorial Bridge will carry him across in about as many minutes as it might have taken him hours before. Across Maryland's Eastern Shore, he would have faced another ferry crossing, which will be eliminated by the opening of the Chesapeake Bay Bridge this month.

Proposed diversions around Washington, D. C., will soon carry him onto existing superhighways through Virginia. Again, at Yorktown, a new

"HERE'S WHY OUR Cedarapids[®] BITUMINOUS MIXING PLANT SATISFIES US COMPLETELY..."

IN TWO YEARS' OPERATION OUR 4000-LB. MODEL E

- Produced a total of over 200,000 tons.
- In one month produced 20,000 tons in twenty-two 9-hour shifts.
- Consistently averaged 101 tons per hour, with peak production hitting 125 tons per hour when using heavy aggregates.
- Never had a shutdown due to failure of the electric drive system.
- Handled a wide variety of aggregates, from shell and iron ore to gravel and crushed limestone.
- Produced material for airport runways, expressways, city streets and state highways, on six different jobs, miles apart.
- Averaged 7 days to take down, move up to 100 miles, and set up.

"That's why we buy CEDARAPIDS!"

says, F. W. Heldenfels, Jr.
HELDENFELS BROTHERS
Corpus Christi, Texas

MR. HELDENFELS ADDS, "Our Cedarapids Model E was purchased only after careful investigation and personal inspection by Lewis H. Jones, Chief Engineer, and myself, of every type of plant in operation in Texas".

Left, is the Model E plant operating at McAllen, Texas, in the Rio Grande Valley about 150 miles south of Corpus Christi. The plant is producing hot mix for a paving program for the City of McAllen. This is the sixth location this very portable Model E has been on in two years.

Above is Heldenfels Brothers' Cedarapids 4000-lb. Model E set up for a job at Corpus Christi, Texas. This rear view of the plant shows the 88" Cedarapids Drier which Mr. Heldenfels likes for its high drying capacity.

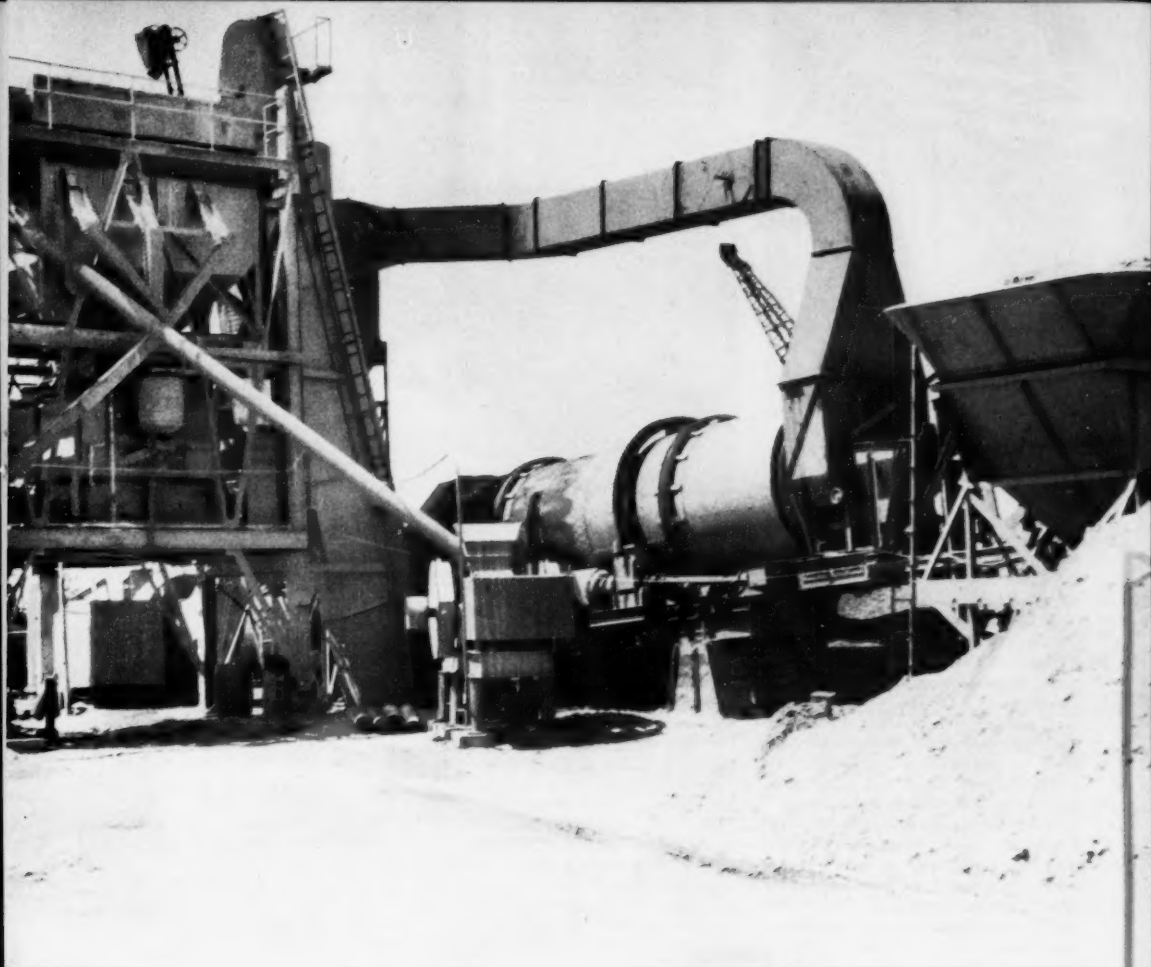
Cedarapids[®]

Built by
IOWA

headquarters for
COST REDUCING EQUIPMENT

THE IOWA LINE of Material Handling Equipment Includes:

- ROCK AND GRAVEL CRUSHERS •
BELT CONVEYORS • STEEL BINS • VIBRATOR AND REVOLVING SCREENS • UNITIZED ROCK AND GRAVEL PLANTS
• FEEDERS • PORTABLE POWER CONVEYORS • PORTABLE AND STATIONARY STONE, GRAVEL AND SAND PLANTS •
REDUCTION CRUSHERS • BATCH TYPE AND VOLUMETRIC TYPE ASPHALT PLANTS • DRIERS • DUST COLLECTORS
HAMMERMILLS • WASHING PLANTS • VIBRATING SOIL COMPACTION UNITS • DOUBLE IMPELLER IMPACT BREAKERS



HELDENFELS BROTHERS ARE SOLD ON CEDARAPIDS FEATURES

ONE of the Cedarapids features F. W. Heldenfels, Jr., particularly appreciates in this Model E Bituminous Mixing Plant is the 88' Drier and its high drying capacity which is frequently required in this area of Texas. The first job the plant went on used oyster shell aggregate containing 15% moisture! Another well-liked feature is the easy portability of this plant. A power raising unit handles the heavy work of erecting and dismantling, and the separate, related units meet all legal limitations for highway travel. Heldenfels Brothers have found Model E portability a real asset in the past two years, when their six different jobs were located in widely separated areas. Now, at the beginning of their third year of operation with their Model E, they have 87,000 more tons under contract involving three different jobs.

Portability is not the only feature that pays off with the

Model E. The big capacity, ranging up to two tons at a batch, the fast, fully automatic controls, and the trouble-free operation of the plant have kept Heldenfels Brothers running consistently ahead of schedule on every job. These and other features of Cedarapids Model E Bituminous Mixing Plants are the reasons why F. W. Heldenfels, Jr., says, "I'm very well satisfied with my selection of Cedarapids, and if I had it to do all over again, especially in view of my experience with this plant, I would make the same decision to buy Cedarapids".

It will be to your advantage to find out what Cedarapids equipment... both Bituminous Mixing Plants and Crushing and Screening Plants... can do for your operations. Your Cedarapids distributor will gladly explain every feature, and help you select the exact Cedarapids Plant most efficient for your job.

IOWA MANUFACTURING COMPANY

Cedar Rapids, Iowa, U.S.A.



An American flag rides the last steel-work up on the Chesapeake Bay Bridge.

bridge spanning the York River replaces another ferry crossing.

The new system of superhighways built around these vital crossings should cut travel time by hours along the East Coast. Toll charges are expected to repay cost of the bridges.

The 4-mi.-long Chesapeake Bay Bridge, completed this month, has been called "a notable example of the designer's art." It rises gracefully in a long, curving arch to bring the suspension span over the channel at right angle to the line of navigation. Its 354-ft. towers seem to loom high against the low, marshy inlet area.

This third longest bridge in the world is actually many bridges in one. It combines every type of span (except draw), including a 1,600-ft. suspension span, 780-ft. cantilever span and 305-ft. deck truss span. Bethlehem Steel erected the steelwork.

About 33,500 tons of steel were fitted into place on the bridge and 118,000 tons of concrete poured for the job. Contractors on the \$44 million job were Merritt-Chapman & Scott, A.G.C., New York; Frederick Snare Corp., J. Rich Sleer, Booth & Flinn, A.G.C., Pittsburgh; and Baltimore Contractors, A.G.C. *Washington Post photo.*



Another photo of the Delaware Memorial Bridge just south of Wilmington.

Many New Bridges Under Consideration

NEW BRIDGE and tunnel plans are being considered in a number of states, a survey reveals. Construction financing seems to be the frustrating problem holding up several proposals for sorely needed structures.

A new \$85 million bridge across the Delaware River in the Philadelphia-Camden area may start this year. The governors of Pennsylvania and New Jersey are awaiting the decision of the Navy on the proposed location.

Another new bridge across the Delaware River, near Florence, is in the planning. It would connect the New Jersey and Pennsylvania turnpikes.

Other plans for extending the New Jersey Turnpike include a projected \$80-million new bridge and connecting link for Newark across Newark Bay to the Holland Tunnel.

Financing proposals were due for consideration this month in the case of another bridge across Lake Washington in Washington State. The bridge would cost about \$12.4 million.

An early start on the Port of New York Authority's projected third tube for the Lincoln Tunnel has been forecast as a result of compromises on issues involving approaches to the facility. The tube would cost an estimated \$58 million.

Broward County, Fla., may be the scene of \$19 million worth of bridge and tunnel work.

Utah road commissioners have given preliminary approval to location and site of a proposed \$1 million bridge over the Colorado River near Moab.

West Virginia is constructing a \$4-million toll bridge across the Kanawha River. The 1,800-ft.-long structure will be the longest across that river. Contemplated bridges across the Ohio will cost the State of Kentucky approximately \$10 million.

A survey is under way of traffic across 21 bridges between Ohio, Kentucky and West Virginia. New bridges which may result from the study include a \$5-million Ohio River span.



Plans Approved for Long Michigan Bridge

Although financial difficulties presently hamstringing the project, the Michigan legislature has authorized construction of a 5-mi. bridge linking Upper and Lower Michigan.

Destined, if built, to become one of the nation's longest, the Mackinac Bridge across the Straits of Mackinac between Lake Michigan and Lake Huron would cost an estimated \$87 million. The proposed structure has been termed physically practical by three leading engineers and economically feasible by a New York consulting firm's traffic analysis.

Funds have not been granted to prepare plans for the project, but the Michigan legislature authorized construction of the bridge a few weeks ago. Preliminary plans have already been drawn up.

They call for a structure 5 mi. long, composed of 26 spans meeting in a center suspension span of 3,800 ft. over the deepest part of the straits. The 3,800 ft. suspension span, supported by four towers rising 565 ft. above lake level, would be the second longest of its type. (The Golden Gate Bridge suspension span is 4,200 ft.)

The bridge will be 68 ft. wide, with a four-lane divided roadway and a 3-ft. walkway on either side. The deck will clear the water by 150 ft., allowing navigation beneath.

A unique feature planned for the

Down the Chesapeake Bay from Washington, another crossing has been erected. The Coleman Memorial Bridge, spanning the York River between Yorktown and Gloucester Point, is the largest swing-span structure of its kind in the world. Here, another ferry boat bottleneck has been eliminated as traffic crosses the bridge in about 1½ minutes.

The 3,750-ft. bridge rests on six piers rising in heights up to 210 ft. above the river bed. Huge caissons, 52 by 62 ft. across at the top, were sunk 70 ft. into the river to facilitate pier construction. They had been towed 40 mi. to the site by the prime contractors, Massman Construction Co., A.G.C., Kansas City, and Kansas City Bridge Co.

The builders fabricated bridge sections on barges and floated them into place at high tide. As the tide fell, the spans settled into their predetermined position on the piers. The two 500-ft. swing spans afford a 450-ft. channel so the largest U. S. battleships can pass through to naval installations upstream. An operator in a control house on one of the spans swings them open with three electric motors of 20 h.p. each.

structure is the immensity of the concrete blocks in which the suspension span cables are to be anchored. The 25¼-in. thick cables will terminate in an anchor block on the Mackinac City side which measures 115 by 180 ft., extending 140 ft. below water level. This huge anchor will contain 90,000 cu. ft. of concrete, making it the largest suspension bridge anchor in the world.

Remainder of the bridge, which will have a concrete roadbed, will be made up of a series of truss spans on concrete piers. Twenty-two of these spans will vary in length from 302 to 560 ft. long.

Would Withstand 120-Mi. Wind

The structure has been designed to withstand winds up to 120 mi. per hour. The substructure will withstand forces of ice 4 ft. thick and a crushing strength of 400 psi.

Although cost of the bridge would be only \$76.3 million, cost of financing and interest would necessitate a \$87-million bond issue, consulting engineers believe. Annual maintenance costs figured at from \$300,000 to \$450,000 would assumably be borne by the state. Toll charges would be an average of \$2.09 per vehicle.

Traffic across the straits has increased 45% in the last 21 years and justifies such a structure, the engineers found. The ferry service presently in operation is claimed to be losing \$500,000 a year.

If financial arrangements progress well, it is hoped the bridge may be started in 1953. It would take about



The proposed Mackinac Bridge, a 5-mi.-long structure linking Upper and Lower Michigan is temporarily stymied by lack of construction funds.

four years to construct. Funds may be made available by the Reconstruction Finance Corporation which is now considering the state's request. President Truman has endorsed the project and Michigan officials are working hard to obtain the needed money.

In California, studies are still in progress to reveal feasibility of new crossings parallel to the San Francisco-Oakland Bay Bridge. The state's bridge authority has also approved a \$168 million program to build new approaches to the bay bridge within a 10-mi. radius of both the Oakland and San Francisco sides.

Plans for the construction and financing through revenue bonds of two new toll bridges are proceeding in Kansas City. Both structures, one to cost over \$14 million and the other to cost \$4.5 million, would cross the Missouri River.



new arrival

ON THE CONSTRUCTION SCENE



P&H MITI-MITE

READY TO CUT YOUR COSTS ALL OVER THE MAP

Here's the light-footed, heavy-handed, all-round performance that means less time and lower costs on 101 different jobs — near and far! It's the MITI-MITE — sensational new machine for truck service — it brings you 100% automotive design — and an amazing new idea in power application.

Choose your own make of truck of suitable capacity — new, used, or rebuilt. MITI-MITE gives you the extra stability that means greater work capacity.

Talk about maintenance! You never had it so easy! All gears fully encased, running in oil; antifriction

bearings on all shafts and drums virtually lubricated for life.

FULLY CONVERTIBLE — for service as shovel, crane, dragline, trench hoe, clamshell or magnet crane with large machine-type attachments. See your P&H dealer for full information.

Write today for Bulletin TX-127

**P&H TRUCK CRANE DIVISION
HARNISCHFEGER
CORPORATION**

Milwaukee 46, Wisconsin

See your **P&H** Dealer!



HEAVY • RAILROAD

» A HALF CENTURY of construction and land development is being reviewed this year as the Bureau of Reclamation celebrates its first 50 years as dam builder and canal digger for Uncle Sam.

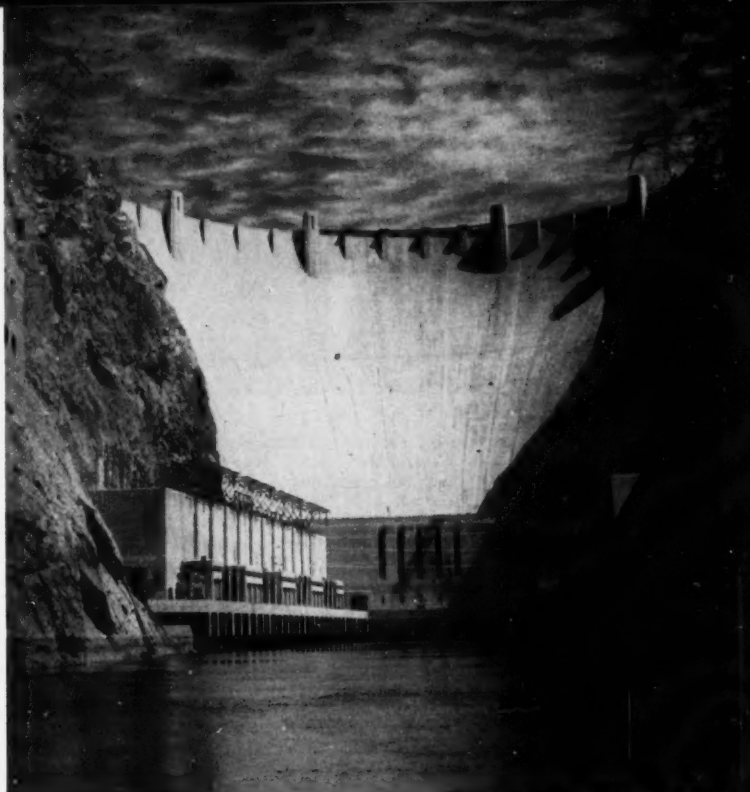
Water has been the pivotal factor of western settlement—its brightest hope and its greatest handicap. Water in profusion, catapulting down from the high hills, flooded out many an enterprising valley farmer. The lack of water drove away other settlers, as long droughts set in and burned up everything but the sagebrush.

Since it was created in 1902, the bureau has tamed the rivers and put them to work. Millions of acres have been turned from barrenness to productive usefulness. It has done this partly by means of huge dams, massive concrete piles thrown against the untamed currents of the West's wildest

Hoover Dam, highest dam in the world, is a prime example of what the Bureau of Reclamation can do in taming the erratic rivers of the West.

rivers. Held behind these structures the spring run-offs now form reservoirs against drought—that perennial threat to western agriculture. Diverted through penstocks, the captive water produces power—the active ingredient in the area's industrial needs.

Building the dams and digging the waterways has posed some puzzling construction problems. The rough terrain, the remoteness of the sites, the harsh weather and the necessity of transporting men and materials over long distances have been problems of concern to the men who built for the Bureau of Reclamation during the last 50 years. Engineering skill and contracting efficiency have met severe tests on reclamation projects and some of the



Photos by Bureau of Reclamation

Reclamation Notes First Half Century as Dam Builder and Canal Digger in the West

construction industry's finest achievements now harness western rivers.

Hoover Dam, Grand Coulee Dam, the Central Valley Project, and the Colorado-Big Thompson Project are some of the best-known jobs completed by contractors for the Bureau of Reclamation. The bureau's list of achievements includes the world's four largest and highest dams (Hoover, Shasta, Hungry Horse and Grand Coulee), the world's largest hydroelectric power

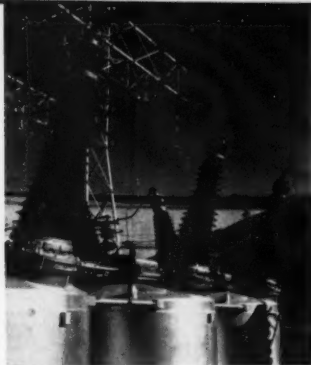
plant (Grand Coulee), the world's largest pumping plant (also at Grand Coulee), the world's longest irrigation tunnel (the Alva B. Adams tunnel in Colorado—13 mi.), the world's longest man-made water system (the Central Valley Project in California—500 mi.), and (in partnership with the Corps of Engineers) the world's largest peacetime construction project (Missouri River Basin—530,000 sq. mi.).

There are 96 Bureau of Reclamation dams and 35 power plants. The bureau has dug 16,000 mi. of canals and erected 3,000 mi. of transmission lines. It is these facilities, representing an investment of \$2 billion, which are responsible for greatly increasing agricultural productivity, flood protection and power production as well as creating recreational facilities in previously arid land.

The extent of Bureau of Reclamation activities in the West is apparent



Concrete canals carry the water from reservoirs to the new farmlands.



The three prime purposes behind the bureau's vast construction program—water for power, irrigation and recreation.

in its several comprehensive land development projects—the Central Valley, the Colorado-Big Thompson, the Columbia Basin and the Missouri Basin. These are plans involving the construction of scores of dams, miles of canals, huge power plants and long tunnels.

The Central Valley Project, a vast diversion scheme, is such a network of facilities designed to distribute water throughout the 500-mi. length of central California. Shasta Dam, 602 ft. high, in the north, traps the seasonal flows of the Pit, McCloud and Sacramento rivers. Keswick and Friant dams are other large structures thrown against the region's fast-running rivers. From their reservoirs are released controlled streams of water, shunted by intricate plans throughout the valley's waterways. Concrete-lined canals—some well over 100 mi. long—transport the waters from river to river and from dam to pumping station. Like some of the bureau's other developments, the Central Valley Project is far-flung in scope and ingenious in detail.

Dedicated a few days ago was another long-looked-for and just completed diversion system. The Colorado-Big Thompson Project, high in the Rocky Mountains west of Denver, is a prime example of how the Bureau of Reclamation converts a natural phenomena to its own use. Here, by means of the 13-mi.-long Adams Tunnel, rainfall captured on the Pacific watershed is shunted through the Continental Divide for use in the Atlantic watershed. The world's longest irrigation tunnel will thus bring water to 718,000 acres of farmland on the broad plains stretching away from the east slopes of the Rockies.

Most ambitious of all are the bureau's plans for the entire Missouri River Basin. In collaboration with the Corps of Engineers, the agency would turn the flow of the Missouri River to human uses all along its 2,500-mi. length. Construction of 100 dams, 40 power plants, and thousands of miles of canals and power transmission lines is foreseen in the ultimate development of the area.

The 50th anniversary of the Bureau

of Reclamation finds it engrossed in a vast construction program in 17 states. It awarded contracts last year for \$107 million. Construction highlights were completion of four dams on the Missouri Basin (Bonny, Kortes, Dickinson and Superior-Courtland) and completion of North Coulee Dam and feeder canal in Washington, Davis Dam on the Colorado River in Arizona, Estes and Mary's Lake power plants and Granby pumping plant in Colorado.

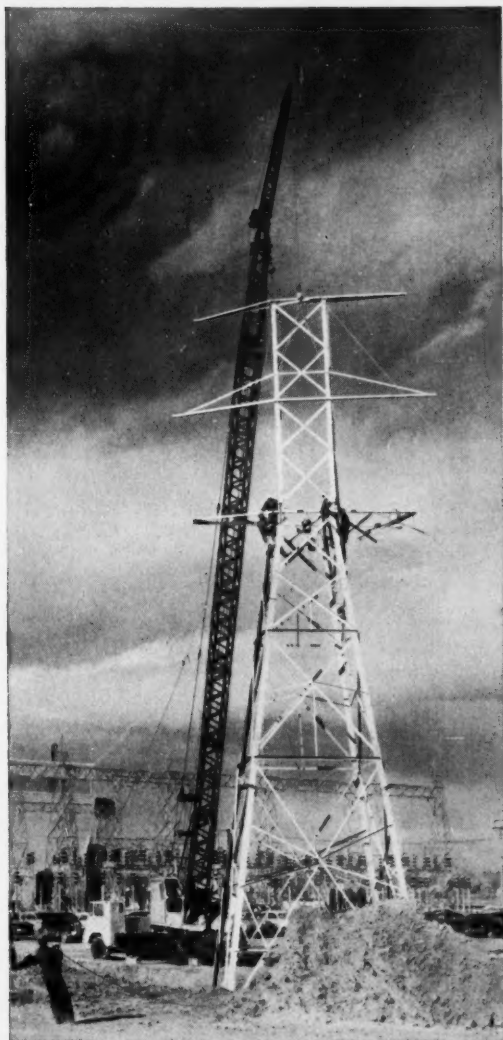
At the close of the year, construction was under way on 13 storage dams, 2 diversion dams, 10 power plants, 6 pumping plants, 360 mi. of main canals, 28 mi. of tunnels, 2,200 mi. of transmission lines and lateral systems for 17 separate areas. A contract was let for the Eklutna Project in Alaska.

Over 2.75 million acres of new farm land have been put into production by such measures since the Bureau of Reclamation was created under President Theodore Roosevelt in 1902. Another 3.25 million acres are now getting supplemental water supplies. The bureau sees its job only just begun as a goal of 6 million new acres within the next 25 years has been predicted. Agency officials see in that goal the need for, not only continued planning, but an accelerated construction program. The deep river gorges of the West have already necessitated the world's most massive dams in the bureau's first half century. The next few decades may see even more imposing structures built against the erratic mountain rivers so that their waters may be turned to useful ends on the western plains.



"Starlights" strung across the construction site permit night work on one of the bureau's current projects—Hungry Horse Dam, a Columbia River Basin project in Montana.

THE CONSTRUCTOR, JULY 1952



**All lifts are
easier with a**

CRANEMOBILE

**top section of a 90 foot
tower goes up quickly**

Maybe you won't be placing steel 90 feet up . . . or handling 25 ton loads . . . but somewhere between these extremes you will find that all lifts are easier with a CraneMobile. With it you have flexible performance to handle long booms for high reach or short booms for heavy lifts.

The CraneMobile is made in several sizes having crane ratings from 10 to 25 tons . . . will speed to scattered jobs . . . and is packed with refinements and operating advantages. Consider the independent worm boom hoist which raises or lowers boom by power only. Then there is the power load-lowering device for precision handling of heavy loads. And, in checking the many BAY CITY features don't overlook the hi-collapsible gantry which reduces overall height to 11' 9" or less when traveling. That's only part of the story. Why not get complete information from your nearest BAY CITY dealer or write today for the CraneMobile catalog.

BAY CITY SHOVELS, INC.
BAY CITY, MICHIGAN

203

CHECK THESE FEATURES

- ✓ Pin-Connected Boom
- ✓ Hi-Collapsible Gantry
- ✓ High Road Speeds
- ✓ Independent Power Boom Hoist
- ✓ Precision Power Load Lowering
- ✓ Removable Counterweight
- ✓ Specially Designed Carrier
- ✓ 20-25 Ton Capacity



BAY CITY



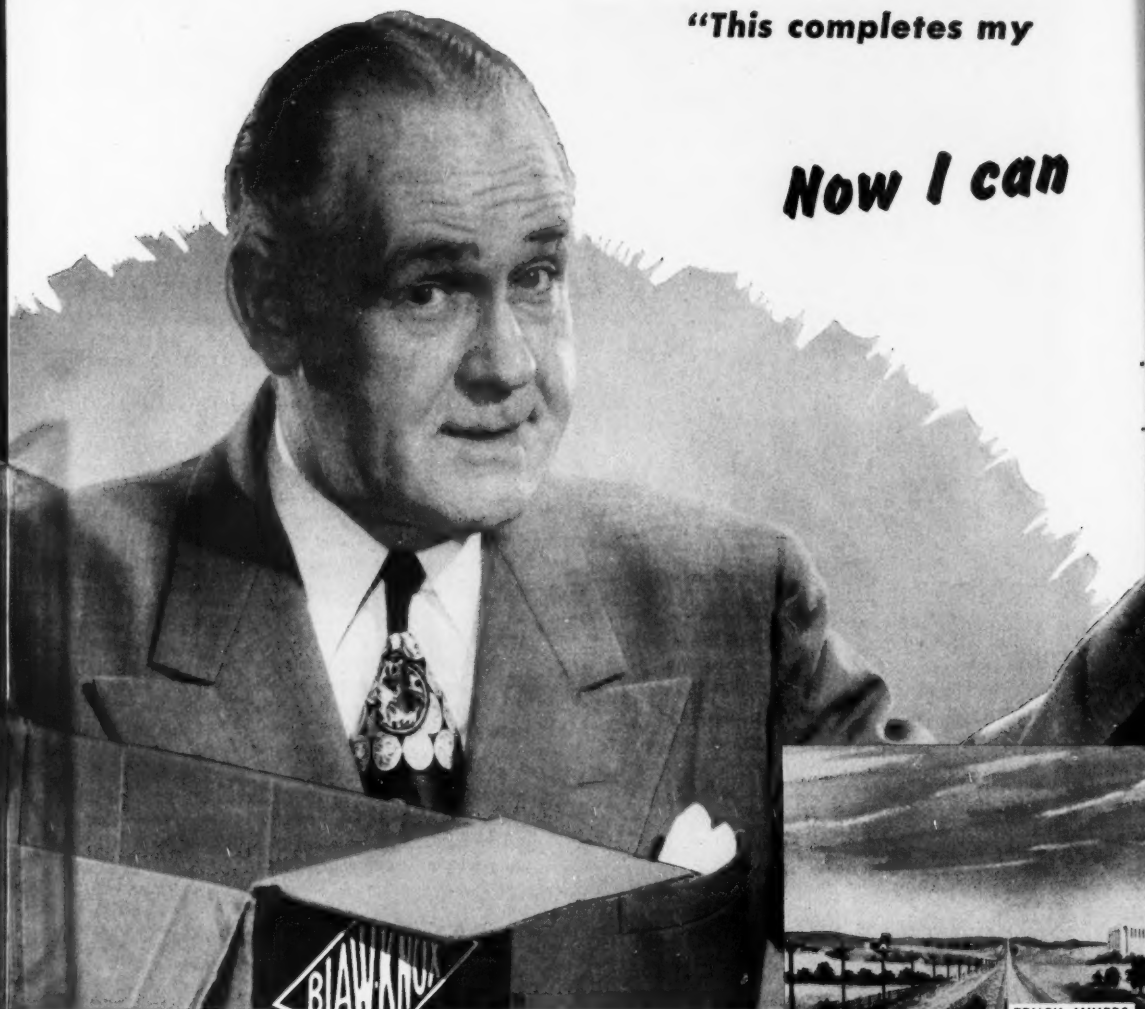
SHOVELS • CRANES • HOES • DRAGLINES • CLAMSHELLS

THE CONSTRUCTOR, JULY 1952

139

"This completes my

Now I can



BLAW-KNOX Spreader-Vibrator and Finishing Machine working on Edens Expressway near Chicago. The vibrating pan on the Spreader assured proper densification throughout the slab, even though an exceptionally stiff mix of air-entrained concrete was specified. A finish tolerance of $\frac{1}{8}$ " in 10' was required. Other Blaw-Knox equipment in this "Complete Package" included Aggregate and Cement Batching Plants, Finishing Machines and Self-Aligning Steel Road Forms. MultiFoote Pavers placed the concrete.



BLAW-KNOX 'Package'... handle any concrete paving job!"

BLAW-KNOX PAVING SPREADERS

Like the other equipment in the "Complete Package", Blaw-Knox Paving Spreaders are designed for record-smashing production and high quality performance. By using the vibratory pan attachment on the Spreader, exceptionally uniform, dense concrete free from difficult finishing problems, can be obtained. This 20-25-ft. adjustable spreader, with the automatic transverse blade, can handle the maximum output of two 34-E paving mixers.

I've really increased the type of jobs I can handle by completing my Blaw-Knox "package" of concrete paving equipment, and so can you, to get ready for the big construction days ahead.

In the "Complete Package" you get *all* the equipment you need, from forms to finisher. You can use the entire set-up for the big jobs, or choose the units you need for whatever job comes up... roads, streets, airports, or even dams or bridges. And you can be sure of getting *all* the advantages of a "packaged" system... smooth, low-cost production-line operation, with each highly productive unit integrated with the others for big output at a steady, profitable pace.

You get a further profit pay-off in the *one-source* conveniences of a "Complete Package"... all your equipment from one responsible manufacturer vitally interested in your success, with only one financial contact, and backed by one construction-minded distributor organization working hand in glove with you to assure prompt, efficient service in parts and maintenance. One Blaw-Knox trained man can service *all* your "Complete Package" equipment! You can get the entire package on one order and in one shipment if you like, or choose the equipment you need *now*, then add the others as your needs increase.

Remember, when you have the Blaw-Knox "Complete Package", you can handle any concrete construction job faster, better and at the lower costs that assure profit.

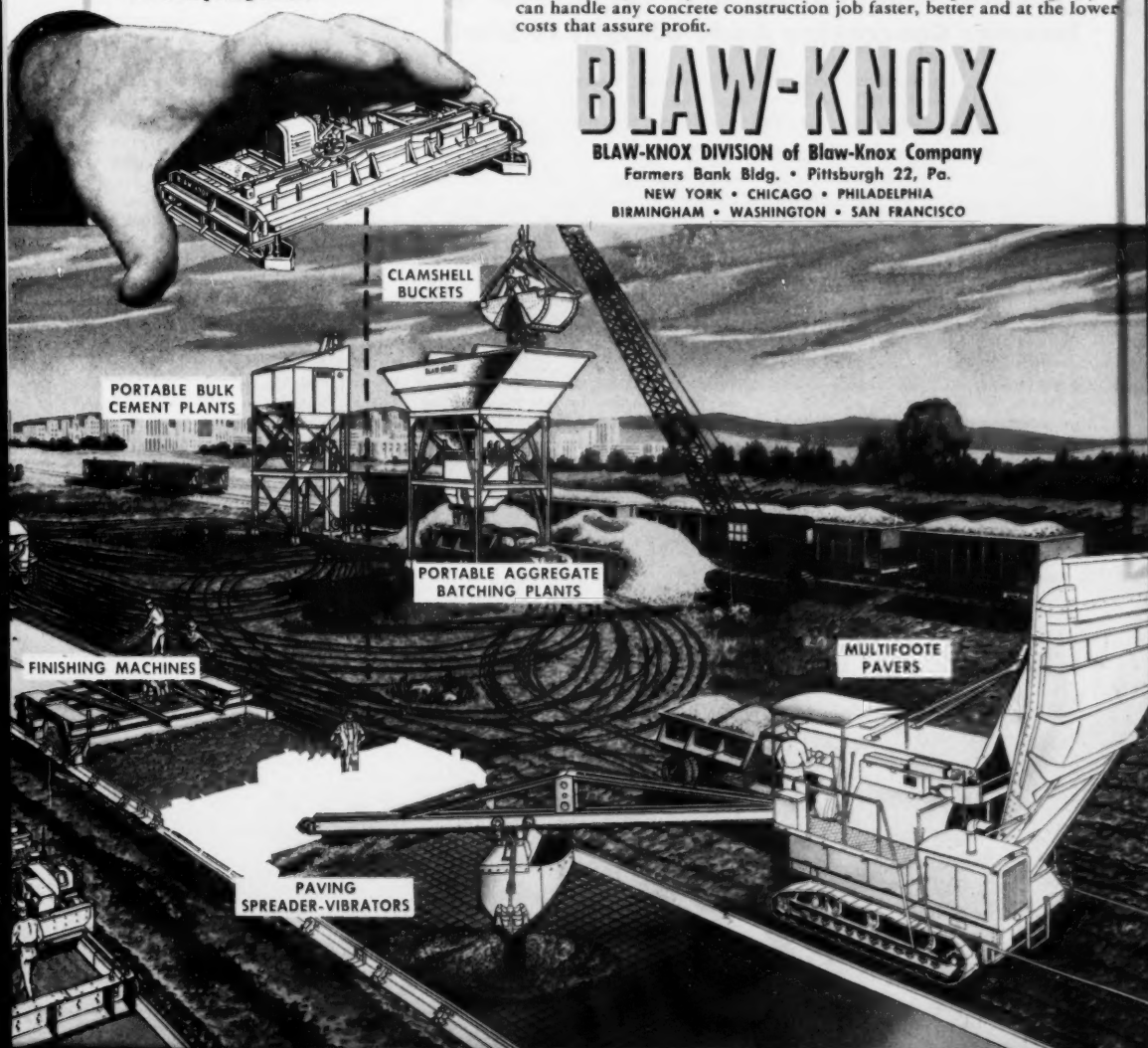
BLAW-KNOX

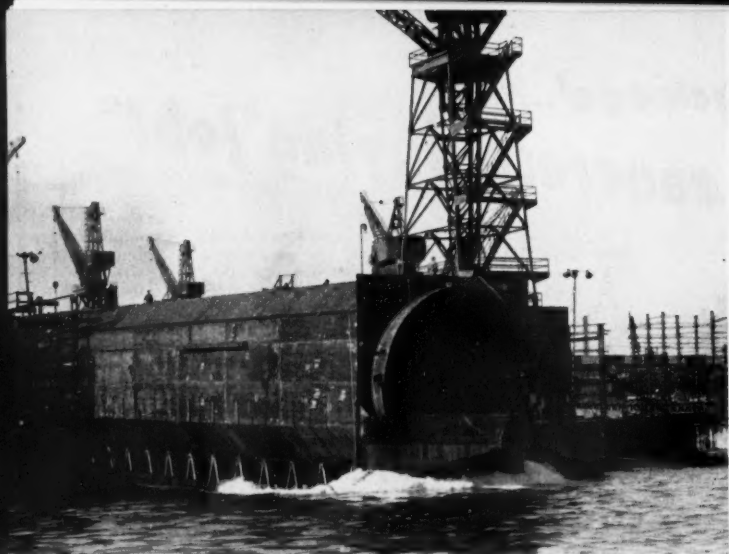
BLAW-KNOX DIVISION of Blaw-Knox Company

Farmers Bank Bldg. • Pittsburgh 22, Pa.

NEW YORK • CHICAGO • PHILADELPHIA

BIRMINGHAM • WASHINGTON • SAN FRANCISCO





slab were installed while the section was still afloat. The inner ring of concrete was built over a web of reinforcing steel lining the inner shell. Concrete was piped into the tube through hatches spaced along the top.

Careful balance had to be maintained throughout the operation to keep the floating tube in balance. When the interior concreting was done, the forms were removed, and the hatchways concreted and sealed tight with welded steel plates, making the tube completely watertight.

A section of the Elizabeth River Tunnel, built ashore, slides down the way with 1000 tons of concrete ballast. Note temporary bow on the front.

Floating Tunnel Sinks to River Bottom as Interior Concreting Adds Weight to Shell

A 3,500-ft. tunnel beneath the Elizabeth River between Norfolk and Portsmouth, Va., is eliminating another ferry across the Atlantic Coast.

Completed recently by Merritt-Chapman & Scott, the two-lane vehicular tunnel is one of the unusual trench type. In projects of this type, the steel casings for the underwater portion are prefabricated on shipways ashore. Bulkheaded at both ends and launched shipwise, they are fitted with interior rings of concrete and roadway slabs, and then sunk and locked into position in a trench dredged across the river bottom.

Seven of these sections, each approximately 300 ft. long and 35 ft. 4 in. across the width of its outer, octagonal-shaped shell, were positioned by the marine contractor while building the Elizabeth River Tunnel.

The huge, watertight steel casings were fabricated on the shipways of the Bethlehem Sparrows Point Shipyard in Maryland—about 180 mi. from the tunnel site. After completion, they were launched like ships. Approximately 800 tons of steel went into the fabrication of each one and, before it was launched, approximately 1,000 tons of concrete was placed in its "keel" between the outer and inner shells to serve as ballast. A temporary launching bow was built on to ease the pressure as the forward bulkhead hit the water.

After launching, the buoyant section was taken in tow by two tugs for the 180-mi. trip down to Norfolk and the "shape-up" piers built by Merritt-Chapman & Scott at the site.

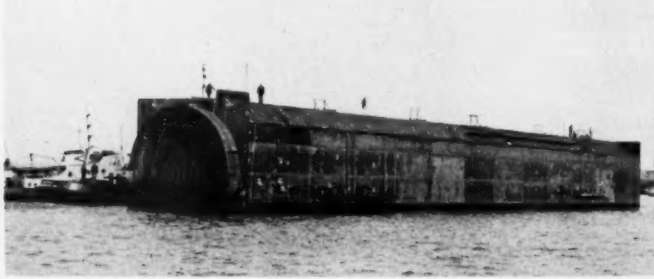
At the project piers, an 18-in. inner ring of concrete and a 22-ft. roadway

The 300-ft. section sank lower into the water as the interior concreting progressed. After the interior work was completed, concrete was sent into the free space between the outer and inner shells through side pockets. This sent the tube deeper into the water. When the side pocket openings sank below the surface, the remaining concrete required was placed by tremie method. It was sent down through a large pipe, the bottom of which was kept below the surface of the concrete being poured.

Towers atop both ends of the tube held target masts on which transit sights were taken from ashore to insure that the section was kept in correct alignment as it sank into its blue-printed position on the river bottom. Divers bolted the sections together, and solid rings of concrete were built around the section joints to seal them tightly before the trench was back-filled. Finally, the bulkheads between sections were holed through, and joints

Left, one of the 300-ft. sections being fabricated in a Maryland shipyard.

Below, two tugs pull the 800-ton section 180 mi. down the bay to tunnel site.



HEAVY • RAILROAD

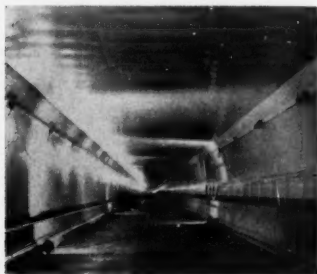
On the floating section, workers prepare network of reinforcing steel prior to pouring concrete inner shell and 22-ft.-wide roadway. Concrete came down through hatches at the top which were sealed tight before tunnel section sank below surface.

welded from the inside and faced with an inner ring of concrete.

The trench in which the tunnel was placed was approximately 50 ft. deep and 40 ft. wide at the bottom. At its deepest point, the bottom of the tunnel is 95 ft. below the surface at mean low water.

The tunnel was part of a bridge-tunnel combination crossing of the Elizabeth River, construction cost of which was about \$16.3 million.

Two sections, here side-by-side, were joined end-to-end on river bottom. Workers on section deepest in the water are putting concrete cap on top.



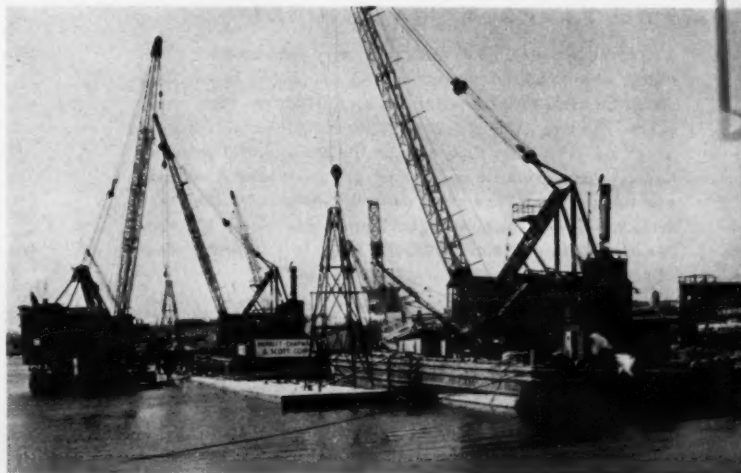
The tunnel as motorists will see it—safely intrenched on the bottom of the Elizabeth River, interior completed and no sign that the tunnel was sunk section-by-section.

Construction is now under way on another tunnel project—the Eklutna Tunnel in Alaska. The 4-mi.-long water diversion tunnel will be driven from Eklutna Lake through a narrow mountain range to an inlet on the coast at a cost of about \$21 million.

The famous old mines of Leadville, Colo., were given a new lease on life earlier this year when construction crews blasted the last round in a tunnel designed to drain the wealthy mining area. The district's workings, which produced metals valued at over \$460 million before they closed, have been flooded by ground water and seepage from melting snow for years.



Below, just the top of this section is above surface as it sinks to trench.



TWO LPC TS 300 MOTOR SCRAPERS

WITH ONLY 50¢ PER HOUR

that's really low-cost earthmoving for CONCRETE MATERIALS & CONSTRUCTION CO.

FROM March 1 to December 24, 1951, Concrete Materials & Construction Co. operated their LaPlant-Choate TS 300s two 10-hour shifts, six days a week, stripping 120-ft. of overburden on a job near Cedar Rapids. In 4000 machine hours, total repairs for each rig amounted to only 50¢ per hour, and that included tires!

To get ready for the new season, engines were completely overhauled and the only repairs found necessary were new rings and bearings. After 4000 hours, the cylinders showed only .002 of an inch wear!

It's no wonder Concrete Materials is sold on Motor Scraper performance. On top of such low maintenance, their TS 300s give them the kind of power that easily handled materials varying from sandy loam to heavy blue clay in a pit loaded with springs, making the going plenty muddy.

TWO YEARS' WORK IN ONE!

BY working their TS 300 Motor Scrapers two ten-hour shifts a day, with such little time out for maintenance or repair, Concrete Materials & Construction Co. completed two years' work in one. This was a job where the Motor Scraper's ability to keep punching, with little time out for tinkering, really paid off. Minimum maintenance is just another reason why it will pay you to follow the lead of so many big-time contractors who cut earthmoving costs with LaPlant-Choate Motor Scrapers. See your LaPlant-Choate distributor today for complete details about all Motor Scraper advantages.

Some of the Other Motor Scraper Features That Cut Earthmoving Costs

- Big capacity . . . 14-yds. struck and 18-yds. heaped . . . to haul bigger pay loads each trip.
- Over 22 mph for speed on the haul road, to make more trips per hour.
- Your choice of power . . . a 280 HP Buda or a 275 HP Cummins diesel for fast acceleration and extra power when you need it.
- Big interchangeable tires for extra traction and flotation.
- Easy loading characteristics that cut valuable seconds off your cycle time.
- Extra high apron lift and positive forced ejection for faster, smoother spreading.



TS 200 and TS 300 high-speed, rubber-tired Motor Scrapers.



Cable-operated Scrapers in 6, 8 and 14-yd. sizes for all makes of truck-type tractors.



2 and 4-yd. hydraulically operated Scrapers for tractor-type and rubber-tired industrial tractors.

WORKED 4000 HOURS EACH...

PER MACHINE FOR ALL REPAIRS!



LAPLANT

MANUFACTURING CO., INC.



CHOATE

CEDAR RAPIDS, IOWA, U. S. A.



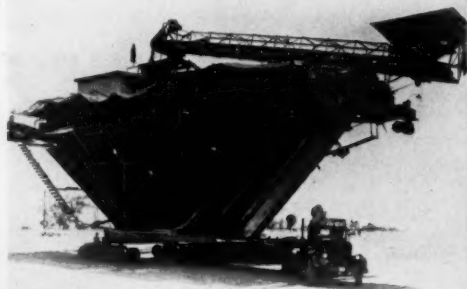
TW 300 rubber-tired bottom-dump Motor Wagon, hydraulically controlled.



TR 280 hydraulically controlled rear-dump Rock Wagon.



Hydraulic and cable operated Dozers.



Contractors in the West have developed a number of methods and machines to meet the construction specifications of the Corps of Engineers and the Bureau of Reclamation. This 400-ton canal liner, developed by Peter Kiewit Sons' Co., A.G.C., Omaha, and Morrison-Knudsen Co., A.G.C., Boise, is an ingenious machine that has built miles of canals for the reclamation program. The trimmer ahead scrapes the sides evenly, loading the dirt onto waiting trucks. The liner and finishing jumbo follows, placing the concrete lining and spraying on a white curing compound. The whole equipment spread moves along on rails. It can be transported intact from project to project as shown in the inset.

The method, now standard, has saved thousands of dollars and as many man-hours.

Ingenious Construction in the West

By Ray Day

West of the Continental Divide, there is one thing typical of construction jobs. They are usually tough. For that reason, western contractors have been driven to ingenuity and resourcefulness. Daring demands respect out where high mountains, deep gorges, great distances, extreme heat and extreme cold challenge the best in construction know-how.

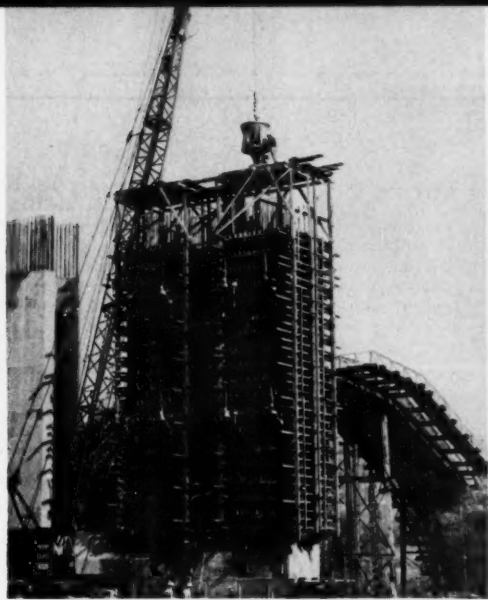
Throwing their weight against those forces, western contractors have come up with some remarkable methods and original devices. On dam work, highways, timber clearing, bridges and air fields they have improvised and schemed to provide the most economical construction in the most efficient way.

Here is a sampling of recent innovations by western contractors.

Bottom left, Western Contractor Claude Fisher, A.G.C., Los Angeles, saves time and money by letting a subcontractor handle the concrete curing on some of his highway jobs.

Below, contractors once were leery of compaction items on pipeline work, but this powerful machine, developed for Emeco Concrete Cutting Corp., A.G.C., Los Angeles, has made pipeline backfill dependable and fast.





The Colorado Street Bridge job in Pasadena is inspiring some unusual construction methods. Even out West this is considered a high pour. This 55-ft.-high form will be filled in one pour. Tiebolt and bracing details are particularly strong. Note completed piers at left.

Guy F. Atkinson, A.G.C., San Francisco, is erecting this new Pasadena bridge in unique fashion. The steel falsework supporting the 300-ft. span seen above is set up on



jacks and concrete pads. When the first half of the span is placed, the steel falsework will be retracted and moved sidewise to its new position for construction of the south half. This arch rib rises 110 ft. above the arroyo floor.

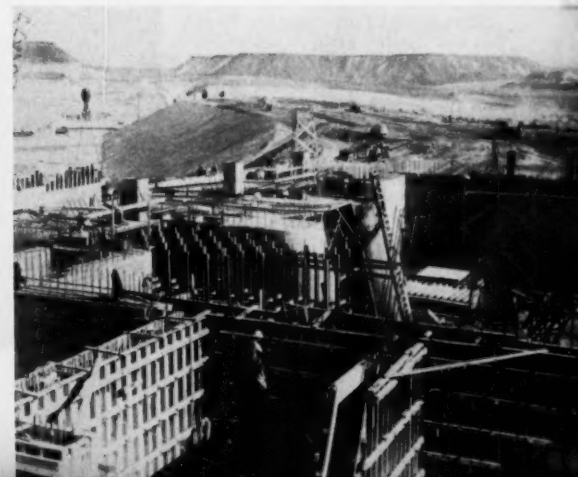
The \$3.4 million job is the largest single contract ever awarded by the State Division of Highways. It is slated for completion next July and will become part of a great modern freeway system in Los Angeles.

Cemented conglomerate, one of the toughest formations a contractor can dig, stood in the way of a big grading extension at Miramar Naval Air Station near Oceanside, Calif. Contractors who figured this item by conventional methods—drilling and power—came up with high unit prices. Morrison-Knudsen, A.G.C., Boise, and Maceo Corp., A.G.C., Paramount, Calif., figured it for this 22-ton special ripper which existed only in an ingenious mind. The scheme was successful. M-K and Maceo got the contract and the profit. Three D-8's move the machine through the conglomerate.



Concrete production set-ups are getting more and more intricate in the West. This refrigerated batch plant at Pine Flat Dam (Calif.), was built to provide the 50-degree cooling specified for the concrete work.

Excellent organization by Morrison-Knudsen Co. made it possible to complete this Idaho dam job in 13 months. Below, carpenters are setting up prefabricated forms. In background, the dirt crew maintains elevation with the concrete.



Construction Firms Develop Atomic Energy

» TWO MEMBERS of The Associated General Contractors of America are among the first private groups to aid in the development of atomic energy for industrial power.

They are the Walter Kidde Constructors, Inc., New York, and the Bechtel Corp. of San Francisco.

The Kidde Constructors have recently joined with two other firms in forming the first privately financed laboratory to develop commercial applications for atomic power. The new group, known as the Walter Kidde Nuclear Laboratories, Inc., is made up of the Kidde Constructors, Walter Kidde & Co., manufacturers of fire protection systems and the Bloomfield Tool Corp., specialists in precision-tool design.

The engineering work is being conducted in New York City and the laboratory research will be carried on at facilities on Long Island.

On the West Coast, the Bechtel Corp., has joined with the Pacific Gas and Electric Co. to study the possible development of nuclear reactors for the production of fissionable materials and power.

Joint Project with AEC

The project, to be jointly financed by the group and the Atomic Energy Commission, will include much research and development work by the companies at the AEC laboratories. The study will include both reactors and chemical separation processes, and will provide for the design of reactors than can be used for making industrial power.

In its interim report, the companies indicated cautious optimism that the difficult technical and financial factors concerned with the project will eventually be solved.

The Bechtel Corp. and the Pacific Gas and Electric group is one of four pairs of industrial and power firms conducting preliminary studies as part of a plan which would permit indus-

try to participate in the program.

The others include the Dow Chemical Co. and the Detroit Edison Co.; the Monsanto and Union Electric Co. of St. Louis; and the Commonwealth Edison and Public Service of Northern Illinois, Chicago.



Above, 40-ft. pile ready for driving. Bolt holes not being permitted, piles were held in frame members with clamps.

Below, line of driven piles forming curtain wall. Note negligible amount of damage to pile heads even after hard driving conditions.



The Dow-Detroit Edison group is the first to put before the AEC a specific proposal with enough ground-work completed to permit them to enter the second step in the project, which calls for more research and development work. The final reactor has not yet been designed by this group.

Prestressed Piles Prove Tough

An interesting application of prestressing is the use of prestressed concrete sheet piles in England. The experiment has been tried at Tyne Dock where the piles were used to form a curtain wall.

The piles weighed about 4 tons and were 40 ft. long, 9 in. thick and about 24 in. wide. They were prestressed by means of eighty-four 0.2-in. stress wires in each pile. Other (mild) steel was provided in the head and toe, as well as stirrups throughout the length.

This construction gave them extreme strength. The prestressed piles withstood hard driving conditions, up to 150 blows per foot of penetration being required in many instances. A 3-ton single acting hammer, dropped 4 ft., was used to drive them.

The piles had been subjected to a specified bending test by the manufacturer. They were designed with tongue and groove and in such a way that a seal of colloidal grout could be forced between piles after driving.

Photos by courtesy of *The Contract Journal*, British construction magazine.

A project to test the strength of western roads is being conducted near Ogden, Utah, by the Western Association of State Highway Officials. Specific purpose of this study is to help solve the truck-weight-pavement-design problem. Details of the road construction, test conduction, and analysis of the results will be done by the Highway Research Board.



LIMA

CAPACITIES

CRANES-Up to 110 TONS
SHOVELS- $\frac{3}{4}$ Yds. to 6 Yds.
DRAGLINES-Variable



LIMA Rubber Mounted TRUCK CRANES in 20 and 35 Tons Capacity

LIMA rubber-mounted cranes offer you the added benefits of greater mobility, less travel time and better maneuverability. Rotating assemblies have the same basic features as corresponding crawler machines, with alterations adapting them to truck or wheel mounting. With outriggers supported, they provide extra capacity; are ideal for operations requiring constant movement around the job, for small scattered jobs, or remotely located.

FIRST BY COMPARISON

LIMA Shovels, Cranes and Draglines have always stood alone by comparison because they are engineered and built to give every user the best value for his investment. Their high productivity, versatility and money-saving features keep down-time to a

minimum and output at a maximum.

Investigate LIMA shovels, cranes and draglines. See for yourself how they help you get greater production at lower cost. Baldwin-Lima-Hamilton Corporation, Construction Equipment Division, Lima, Ohio, U. S. A.



T2101

SALES AGENTS IN PRINCIPAL CITIES OF THE WORLD

BALDWIN-LIMA-HAMILTON



ONE ROCKMASTER® BLAST dams a river gorge



1. The sheer walls of Cabinet Gorge in Idaho rise 350 feet above the swift Clark Fork River. Morrison-Knudsen Co., Inc. had to throw a cofferdam across waters 70 to 80 feet deep—too tough a job for truck dumping or sheet piling. So M-K used explosives.



2. The blast starts. Nearly 65,000 pounds of Atlas Flo-dyn #4 (40% free-flowing dynamite) were used. ROCKMASTER milli-second delay detonators Nos. 0 to 11 were used for accurate control of throw across the river. ROCKMASTER timing fired forward end first.



3. The two lower benches move riverward—an example of how milli-second delay timing is used to throw rock to a designated spot. Vibration and overbreak were not factors in this blast, but note that the cement silo is undamaged and the foot-bridge remains up.



4. A second after detonation the front burst is over; bottom and top falling fast. This was a coyote-tunnel blast. But the multiple one-two punches of ROCKMASTER give the same control with well or wagon drill holes.



5. Water splashes high in displacement. Success was evident immediately after the blast when water started flowing through two tunnels prepared to divert stream. Atlas sales-technical men cooperated with Morrison-Knudsen.



6. Dust has settled. More than 90,000 cubic yards of rock, thrown directly across the stream as aimed, are ready for final grading and will serve as basis for further cofferdam installations.

This was a big job. But even on small jobs you can profit by ROCKMASTER control. Find out how milli-second delay timing can work for you—send for free 20-page book, with diagrams, outlining the control possible with ROCKMASTER blasting.

ATLAS EXPLOSIVES



"Everything for Blasting"

ATLAS POWDER COMPANY • WILMINGTON 99, DELAWARE

Offices in principal cities

» A FOUR-YEAR college program in construction, leading to the degree bachelor of science in construction, is offered by the School of Engineering at North Carolina State College.

The program was established in 1948, and its first class graduated this spring. Judging from the enthusiastic reception these graduates received by construction concerns, it is evident that the curriculum has something particularly worthwhile to offer to the industry.

It is the express purpose of this program to provide the construction industry with a source of man-power specially prepared to enter that field of work. The emphasis in this program, as compared with traditional studies in civil engineering, is on planning and management aspects of all

Industry Welcomes N. C. State's First Construction Graduates

- Class of 29 Enters Business, Armed Services
- Carolinas A.G.C. Branch Presents Awards

types of construction activities, rather than on design.

The program is unique in its aims and in its accomplishments. From its very beginning it has enjoyed the strong support and encouragement of the construction industry, particularly from the Carolinas Branch of the Associated General Contractors.

The curriculum is administered by the Civil Engineering Department, which is headed by Dr. Ralph E.

Fadum. While the construction students do study many fundamental subjects in common with the civil engineering students, a special sequence of courses in the third and fourth year prepares them for their specialization in the construction field.

Organization of the Curriculum

The sequence in the junior year begins with a study of estimating procedures; it is followed by cost studies, and it concludes with the preparation of bids for an actual project. The senior sequence is devoted to studies in planning and organization, including project analysis, plant layout, equipment requirements, and scheduling of construction operations.

These two sequences form the core of the curriculum. However, the program also includes studies in fundamentals of mathematics, physics, mechanics, and electricity, and courses in public speaking, business English, labor relations, legal aspects of contracting, construction cost accounting, and an integrated sequence of courses in the humanities and social sciences.

Actual practices and problems of the industry are studied in classrooms and laboratories. Special projects and frequent inspection trips to construction sites help the students to further appreciate the applications of their studies. They are interested in all types of structures, including highways and light and heavy construction. Stress is placed on management aspects of these activities.

Preparation of Bids

In the junior year the work in estimating and in bidding culminates in the actual preparation of bids for a live project. Every effort is made to simulate the atmosphere encountered in actual practice.

Estimates are prepared by groups of students acting competitively as separate companies. They are provided with the same plans and specifications for the job that the commercial contractors receive, and they are completely responsible for contacting the various material supply houses for

(Continued on page 154)



This first graduating class in the construction curriculum at North Carolina State College is the product of a program instituted in 1948 to meet a demand by the industry for men trained in both engineering and the structural and business essentials of the construction field.



A.G.C. Carolinas Branch honors top-ranking students. H. S. Crain (right), immediate past president of the branch, presents awards to John R. Hay, Jr. (center) and Thomas C. Fite (left) in recognition of superior scholastic achievements. The A.G.C. branch initiated a fund-raising campaign for the institution's construction education program.

Tough Job ?

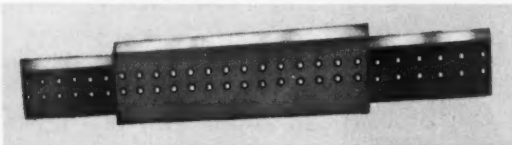
SPECIFY

PACAL BLADES



Illustrated above: bulldozer with 3-piece blade

Below: 3-piece scraper blade



When the going gets rough, you can depend on PACAL BLADES. Field tests on toughness show that PACAL BLADES are *superior* for abrasion and impact resistance. Made of special steel, PACAL BLADES are laboratory and road tested to withstand the gruelling punishment of road work and construction. PACAL BLADES wear uniformly, give maximum wear, cut operating costs.

Send your machine specifications and orders to Department BB-72

PAPER-CALMENSEN & COMPANY

COUNTY ROAD 8 AND WALNUT STREET, ADJOINING HIGHWAY 36
ST. PAUL 8, MINNESOTA TELEPHONE NESTOR 9456



Pacal BLADES

are extra long lasting when bolted with

Pacal Heat Treated PLOW BOLTS

Wear and breakage due to vibration and shock are reduced when grader, scraper, bulldozer and snow plow blades are installed with Pacal Heat Treated Plow Bolts. Pacal Bolts are high tensile bolts having more than double strength. They fit tighter and will not stretch or loosen. The slightly higher original cost is compensated because Pacal Heat Treated Bolts can be re-used oftener and blades will last longer because of the tighter fit.

ALL LENGTHS CARRIED IN STOCK FOR IMMEDIATE DELIVERY

Diameters: $\frac{1}{2}$ " , $\frac{3}{8}$ " , $\frac{3}{4}$ " , $\frac{1}{2}$ " and 1"

No. 3 Head (Round Countersunk Head, Square Neck) heat treated to Society of Automotive Engineers Grade 5 Specifications. Furnished with A.S.R. Hexagon Nuts.

Use Pacal Bolts on Pacal Blades for Graders, Scrapers, Bulldozers and Snow Plows.

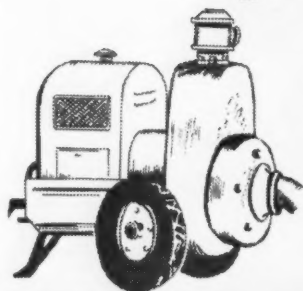
write, wire, or phone Dept. PB-72



PAPER-CALMENSEN & COMPANY

COUNTY ROAD B AND WALNUT STREET • ADJOINING HIGHWAY 36
TELEPHONE NESTOR 9456 • ST. PAUL 8, MINN.

NO Guessing WITH THIS PLATE!



Guessing's out — you **KNOW** the pump you buy will give full performance if it wears the A. G. C. Standard Plate. Pumps wearing the A. G. C. label must meet certain basic standards of pump performance as set up by the Pump Bureau. These standards are approved by the A. G. C. and guaranteed by the manufacturers listed below.



CONTRACTORS PUMP BUREAU

(Established 1938) Affiliated with
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.
Munsey Building, Washington 4, D. C.

STERLING MACHINERY CO.
Los Angeles, California

WORTHINGTON PUMP & MACH. CORP.
Construction Equipment
Division
Dunellen, New Jersey

LEYMAN MFG. CORP.
Cincinnati 2, Ohio

BARNES MANUFACTURING CO.
Mansfield, Ohio

CARVER PUMP CO.
Muscatine, Iowa

C. H. & E. MANUFACTURING CO.
Milwaukee, Wisconsin

CHAIN BELT CO.
Milwaukee, Wisconsin

CONSTRUCTION MACHINERY CO.
Waterloo, Iowa

THE GORMAN-RUPP CO.
Mansfield, Ohio

THE JAEGER MACHINERY CO.
Columbus, Ohio

MARLOW PUMPS
Ridgewood, N. J.

NOVO ENGINE CO.
Lansing, Michigan

RICE PUMP & MACHINE CO.
Grafton, Wisconsin

ESSICK MANUFACTURING CO.
Los Angeles, California

(Continued from page 151)
current cost figures. With complete dummy bids in hand, they attend the opening of bids for the actual project. There, at first hand, they compare their figures with those submitted by the commercial companies. Their results have closely corresponded with those of experienced contractors on the general, plumbing, heating, and electrical contracts.

Last year the project bid upon was an administration building for the State Hospital at Raleigh. The actual general contract bids ranged between \$1,053,000 and \$1,245,900. The student bids were \$1,118,899, \$1,206,444, and \$1,222,829. The practice bids included a complete breakdown of all costs except hardware, in which a sub-contract bid of \$30,000 was used.

Inspection Trips

Another feature of the construction curriculum is an extensive trip of a week's duration that is required of all students during the latter part of their senior year. The trip provides an opportunity to inspect a wide variety of construction activities.

This past spring the group visited such varied construction sites as the Philpott Dam at Bassett, Va., a Housing Development at Fort Bragg, N. C., the Ocean Terminal and Atlantic Beach Bridge at Morehead City, N. C., airport construction at the Marine Base near Cherry Point, N. C., and a duPont manufacturing plant at Grainger, N. C.

Working Experience

Actual working experience in the field is another one of the requirements for the construction degree. One summer's employment is compulsory, and the majority of the boys work several summers, so that before graduation all acquire some experience tying in their teachings with actual practices. The old adage which claims that experience is a great teacher is very true. However, it has been proven that experience can teach a great deal more a great deal faster if the inexperienced person is well-equipped with a background of fundamental knowledge.

Support of Industry

Many people in the construction industry, too numerous to mention individually, have shown a strong interest in the development of this curriculum at North Carolina State College.

(Continued on page 156)



MARLOW MUD HOG PUMPS HELP SPEED CONSTRUCTION OF VITAL DEFENSE PLANT

When Darin & Armstrong, Inc., general contractors, wanted "dry digging" insurance on a highly important defense plant construction job, they chose multiple units of Marlow Mud Hog Pumps, supplied by Michigan Tractor and Machinery Co. of Detroit as distributors.

"We use Marlow Pumps," says Mr. Duncan Cain, Equipment Superintendent of Darin & Armstrong, "because we have found them extremely satisfactory for our type of work."

Construction men all over America and all over the world know the simple,

rugged and trouble-free construction of Marlow Mud Hogs. These famous time-tested pumps will handle mud, sand, slime and solids in suspension with ease and speed, sucking up muck almost thick enough to shovel.

The Mud Hog's patented ball valves are virtually clogproof. All liquids pass *under* the diaphragm to avoid unnecessary wear and cutting hazards.

When messy digging confronts you, Marlow Mud Hogs will work fast and dependably to make the job easier. Write for new free bulletin No. C-52.

MARLOW PUMPS

RIDGEWOOD,
NEW JERSEY

Manufacturers of the World's Largest Line of Contractors' Pumps Including the Famous Marlow Mud Hogs

(Continued from page 154)

Acting collectively, through the Carolinas Branch of the A.G.C., they have aided the program materially in a number of ways. Through their auspices, several experienced speakers have been secured to address the construction students.

A.G.C. Instrumental

The A.G.C. was very instrumental in making the arrangements for the senior inspection trip.

The success of the junior projects for preparation of live bids has been in large part dependent upon the A.G.C.'s assistance in securing the original plans and specifications, and in arranging for the students to attend the session at which bids are opened.

The weekly bulletin of the A.G.C. has carried listings of employment opportunities, for both summer and permanent work, which has been helpful to the construction students.

The A.G.C. has further shown its

interest in the program by the presentation of annual awards to the two top students in the senior class. This year these awards were presented at the spring meeting of the North Carolina Section of the American Society of Civil Engineers by H. S. Crain, immediate past president of the Carolinas Branch of the A.G.C. John R. Hay of Hickory, N. C. and Thomas C. Fite of Charlotte, N. C. were awarded scrolls and cash prizes in recognition of their scholastic achievements.

Such close cooperation and support of the construction industry has helped to establish a bond between the program and the industry. The relationship has been very helpful to the development of the curriculum thus far, and it is expected that it will continue to the mutual benefit of all parties concerned.

The Construction Graduates

Over 100 undergraduate students are now enrolled in this program, and twenty-nine were graduated this June. These graduates have found themselves in demand by many construction companies, and their job offers have included excellent opportunities for the future.

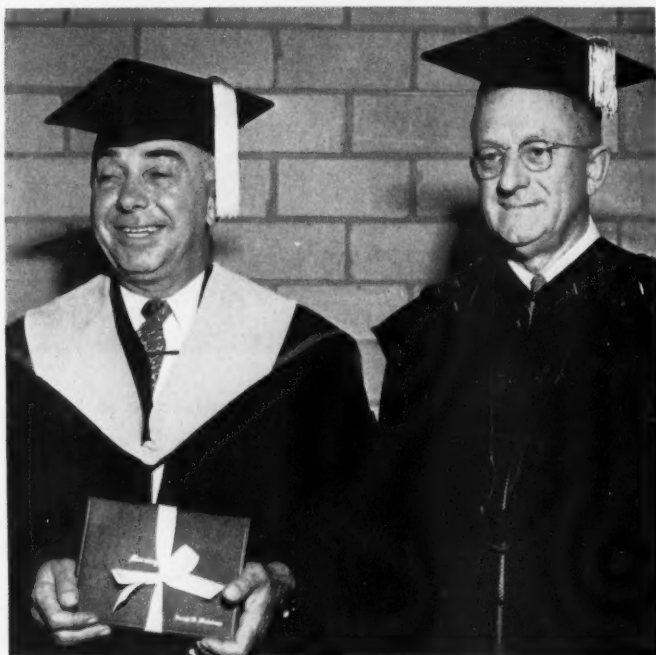
Ten of the twenty-nine have been called to active duty in the armed forces immediately following their graduation. Every one of the others has entered employment directly related to the construction industry; five of the graduates are self-employed. Their construction training is rated so highly that four of those entering the armed services have been offered and have committed themselves to jobs with particular companies at whatever indefinite date they are released from service.

Industry Reaction "Gratifying"

This reaction of the industry has been very gratifying to officials of North Carolina State College. But they recognize that the program can be fairly judged only by the performance of the graduates in industry.

These college officials do not pretend that the program can equip any graduate to assume the immediate direction of any construction job. They do believe, however, that the graduates have acquired a firm foundation from which they will expand and grow rapidly while on the job, and which they will eventually utilize to help the industry expand and grow, in turn.

Winkelman Honored by Morningside



Dwight W. Winkelman (left above), past president of The Associated General Contractors of America, was awarded the degree of Doctor of Science last month by Morningside College of Sioux City, Iowa. He was presented for the honor by W. A. Klinger (right above), of Sioux City, another past president of the A.G.C.

Mr. Winkelman, president of the D. W. Winkelman Co., Inc., Syracuse, N. Y., was president of the A.G.C. in 1948. He is a native of Lohrville, Iowa, attended Morningside College and graduated from the University of Iowa in 1924. He went into the con-

struction business immediately after graduation and established his own firm in 1927.

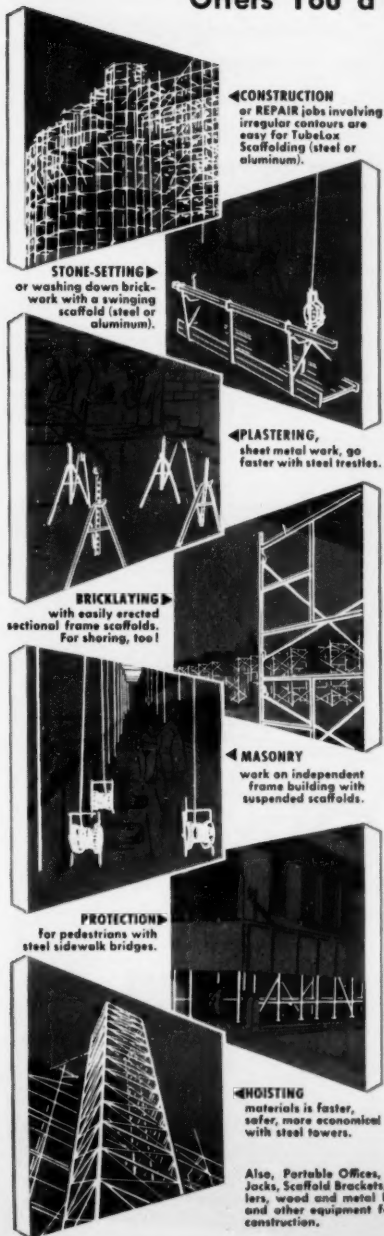
During World War II, he served on the Construction Industry Advisory Committee to the War Production Board, and later was sent to Europe to study construction methods used by the Germans and others. He has served in many capacities in the A.G.C., and has been past president of the A.G.C. New York State Chapter.

His firm has been active in highway and heavy construction, and its activity has included work on the Manhattan Project at Oak Ridge, Tenn.

When You Need Scaffolding . . .

REMEMBER THE PATENT SCAFFOLDING CO.

Offers You a Complete Service



CONSTRUCTION
or REPAIR jobs involving irregular contours are easy for Tubelox Scaffolding (steel or aluminum).

STONE-SETTING
or washing down brick-work with a swinging scaffold (steel or aluminum).

PLASTERING,
sheet metal work, go faster with steel trestles.

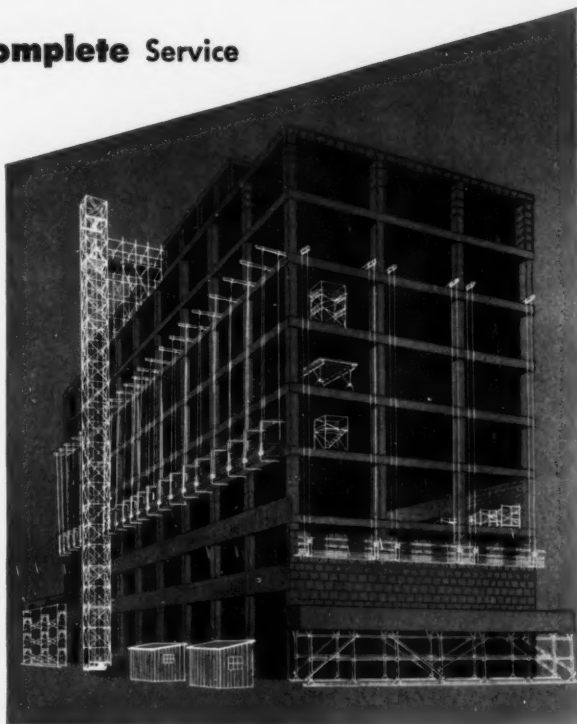
BRICKLAYING
with easily erected sectional frame scaffolds. For shoring, too!

MASONRY
work on independent frame building with suspended scaffolds.

PROTECTION
for pedestrians with steel sidewalk bridges.

HOISTING
materials is faster, safer, more economical with steel towers.

Also, Portable Offices, Ladder Jacks, Scaffold Brackets, Shinglers, wood and metal ladders and other equipment for light construction.



WE stock, rent and sell *all* types of fixed and rolling scaffolds for construction, repairs, remodeling and all types of sub-contract work. This means you get the *right scaffold* for your job from one source of supply . . . a convenience *no other* manufacturer can offer.

And, our many years of experience in the scaffolding industry will help you cut costs—while doing the job better. You'll save time and money by calling us when you need scaffolding.

P. S.—Patent Scaffolding—Whatever your job.



60% Greater Safety...Efficiency...Economy

THE PATENT SCAFFOLDING CO., Inc.

38-21 12th Street, Dept CD • Long Island City 1, N. Y.
West Coast Plant: 6931 Stanford Avenue, Los Angeles, California

ASK THESE 10 QUESTIONS before you buy a diesel engine!

- 1 Is it a "true" diesel?
- 2 Does it have unit fuel injection?
- 3 Does it have four valves per cylinder?
- 4 Does it have distortionless pistons?
- 5 Does it have interlocking rods?
- 6 Does it have an extra heavy crankshaft?
- 7 Does it have dual overhead camshafts?
- 8 Are the camshafts driven from the flywheel end?
- 9 Does it have an integral hydraulic servo-type governor?
- 10 Is the cylinder block symmetrical?

ASK these questions of any diesel engine salesman and you'll find that only the Murphy Diesel Salesman can answer "Yes" to all of them. From an operating standpoint ten "Yeses" mean you'll get more power, greater economy, greater dependability and longer engine life... just what you get with Murphy Diesels. Full information is given in the booklet "10 Questions to Ask a Diesel Engine Salesman." Ask your Murphy Diesel Dealer for a copy or write direct.

**MURPHY
DIESEL**

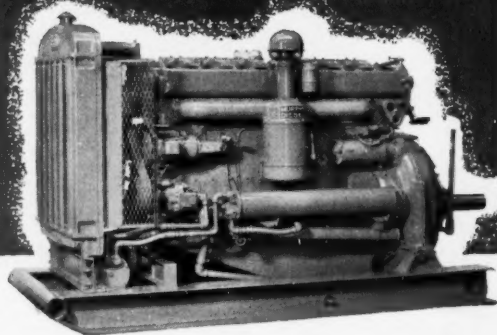
Heavy duty power

for construction

Murphy Diesel Engines and Power Units for construction, 90 to 226 H.P., 1200 and 1400 RPM. Generator Sets, 60 to 140 K.W.

MURPHY DIESEL COMPANY

5333 W. Burnham St. Milwaukee 14, Wis.
Sales, parts and service in principal centers



» THERE ARE FEW, if any, cities in the world undergoing the face lifting such as is taking place in Mexico City. An annual visitor has a difficult time recognizing the city's landmarks as the Mexican capital grows from an ancient, squat city of unattractive buildings to a modern metropolis of many graceful and towering skyscrapers—ultramodern in every detail.

Mexican builders long refrained from building skyscrapers because of the uncertain soil conditions under the city. The metropolis is located over 7,000 ft. above sea level, but is in the Valley of Mexico and on a site that once was a large lake. The subsoil and the dangers of earthquakes alike have forced architects and builders to plan permanent buildings with care.

The Social Security Building is a creation of architect Carlos Obregon Santicilia, one of the dynamic new architect-engineers changing the face of old Mexico City.

In the last decade and, especially since the end of the last war, engineers have challenged these problems. The result is a building boom in Mexico City that is one of the most progressive in the world. Architects and engineers have used various methods of engineering to overcome foundation problems in planning large buildings.

Dr. Leonardo Zeevaert, former Massachusetts Institute of Technology graduate student, has used the "floating foundation" to overcome the soil conditions. This plan utilizes a deep excavation in combination with concrete and wooden piles. Although it has been used in American cities where necessary, it is new in Latin America.

For the new 40-story *Latino-Americano* skyscraper, the Mexican soil expert planned an excavation of 41 feet beneath the earth's surface. The foundation piles rise from a hard area below this at a depth of 108 ft. Only the future will tell how much these heavy structures will sink. The Palace of Fine Arts has sunk bit by bit since it was built nearly a half century ago. Some builders join foundation footings to ensure even settlement and other projects have piles to reach the deep gravel. Water is pumped back into the soil also to replace water pumped from wells to complete a new water system.

Planners of the new 40-story skyscraper were warned that its weight



Beautiful Buildings Boom in Mexico City

By Paul Taliaferro

would upset the pressure of the soil beneath nearby buildings and would crack the entire block. Wedged in between buildings on both sides, none of its neighboring buildings have cracked to date.

Near the new, towering *Latino-Americano* skyscraper, the tallest skyscraper in the world outside of the United States, is a 37-story insurance and security company building. More than a score of large new office buildings of structural steel skeleton type were under construction at the beginning of 1952. The new University of Mexico campus has a 15-story building for its department of science. The new railway terminal towers 14 stories.

Other recently completed new buildings include the 13-story Social Se-

curity building with its expansive glass window areas. Planned by architect Carlos Obregon Santicilia, it is one of the most attractive and modern of the city's many office buildings. Another handsome new office tower is the 20-story *Recursos Hidraulicos* irrigation building which houses the water power industry headquarters. This ultra-modern skyscraper was planned by Architects Mario Pani and Enrique del Moral. The new *Edificio Reforma* nearby, housing the U. S. embassy, was planned by Pani and architect Jesus Garcia Collantes.

Most of Mexico's architects are engineers as well. They need such ability to solve the many problems of planning a long-life structure. There is a strong and constant tropical sun, but with its high altitude the air is

FOREIGN CONSTRUCTION



The new Recursos Hidraulicos Building, national headquarters offices for irrigation and water power. In the background is the new Edificio Reforma building where the U. S. Embassy is located.

frequently cold. Special plans are needed to give new buildings the benefit of the sun. The Associated Civil Engineers organization is responsible for many of the new and handsome buildings on the city's skyline.

There are two enormous housing projects nearing completion which will help solve the tight housing problem in this city of more than 3,000,000 people. The President Miguel Aleman housing project is generally known as the "Multifamiliar." It is a

city-within-a-city with swimming pool, playgrounds, nursery, shopping and medical centers, sports field, and public laundry with latest-type equipment. Still under construction, the President Juarez housing project is another project planned by Mario Pani. It will provide living space for 3,000 people. Nineteen buildings make up this unit which is grouped around an 11-story central building.

In 1950, Mexico received about \$15.8 million in new school buildings. Recently completed in the republic are 2,143 new schools. More than 600 others are now under construction.

Another phase of building progress in Mexico City is public works. Hundreds of millions of pesos have been spent in recent years for public works in the federal district. A plan is being developed to spend \$92.5 million for continued modernization of the capital city. The "City of the Future" is the name applied to this future project by the city officials. Included in its master plan will be new key boulevards and thoroughfares in the downtown district, a subway system to help solve the traffic problems. This is a long-range plan that may require 30 years to complete. Extension of the subway and rapid transit system will develop slowly.

Between 1940 and 1947, 37,721 new residences and 9,311 new apartment buildings were put up, and in the last four years the pace has been faster. *Paseo de la Reforma*, the city's Main



A typical scene in present-day Mexico City where tall skyscrapers are changing the city's skyline. The building on the right is a new 40-story office tower—tallest commercial building in the world outside of the U. S. Left of it is a new 37-story insurance office building.

Street, has steadily changed from a beautiful landscaped boulevard of two-story French-style mansions to long rows of towering hotels, office buildings and other commercial structures. The daring new skyscrapers that line the street feature much glass, stainless steel and color. Many of the tall buildings have sun decks, terraces and penthouses.

Mexican architects have cut loose from all traditions in planning an original style to fit their city. Visitors for the first time will be interested in seeing Aztec construction, Spanish colonial and the magnificent new buildings that reach skyscraper class. Some of the skyscrapers have pagoda-like setbacks, sun decks on each setback, extensive glass walls with thin stone and metal trims. Some of the new buildings turn a convex face to the street but others offer a concave face.

Construction of tall buildings in Mexico followed the experimental stage in the United States that produced every kind of construction. Many Mexican architects and engineers are young and possess ideas that are vital and different. At the present rate of construction, Mexico City will be regarded as one of the world's centers of beautiful modern architecture.

Another view of the Social Security Building on one of the city's famous wooded boulevards.



Symons FORMING SYSTEM

engineered to fit special needs...



Mass Production Made Easy with Symons System

Robert E. Judge, Concrete Contractor, Bellwood, Illinois

400 concrete foundations were expertly framed in record time with Symons Forms. "Weather and material permitting, these 25' x 32' foundations were set up in four hours by three men," stated the contractor. This rapid, economical means of form erection can be accomplished because panels are standardized and the erection hardware, which consists of three basic pieces, is easily secured.



Reinforced Forms for High Walls, Fast Pours

James Stewart, General Contractor, Chicago, Illinois

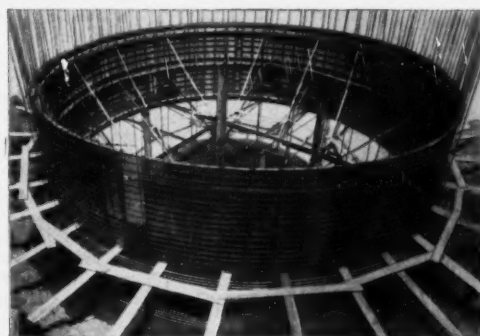
Pouring of these high walls with pressures from 650 to 1500 pounds per square foot required Symons 3/4" Plywood Forms with steel ribs every 12". These heavy duty forms allowed the use of additional ties where the pressure was the greatest. Setting up and stripping was executed at the lowest possible cost due to the Symons System of securing forms and ties in one operation.



Setting Up Forms on a 16' Battered Wall

James Leck, General Contractor, Minneapolis, Minnesota

Ties were placed in position when outside forms were erected. After erecting steel, inside forms were set in place and secured to the ties. Battered walls are handled similar to vertical walls, the only difference being the variance in the length of ties. Symons provides any special length ties promptly at little or no extra charge. Scaffolding was secured with standard hardware.



Setting Up Forms for Sewage Disposal Tank

G. L. Tarlton, General Contractor, St. Louis, Missouri

Steel rib panels with V shaped fillers at each joint were employed. The connecting bolts used in joining two panels and for anchoring ties pass through these fillers. Reinforcing is placed prior to locking of outside forms to panel ties. Symons Forming System is a simple method of forming that is adaptable to straight walls, battered walls, curved walls and slabs.



Symons

SYMONS CLAMP and MFG. CO.

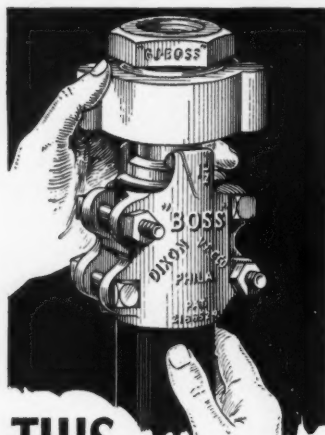
4239 Diversey Ave. Dept. G-2 Chicago 39, Illinois

Please send information on Symons Forms

Name

Address

City Zone State



THIS Washerless COUPLING

has no equal for efficiency, durability and safety in every high or low pressure hose service . . . steam, water, gas, air, oil, hydraulic. Ground joint union between stem and spud provides leakproof, trouble-free seal. Furnished with super-strong, "Boss" Offset and Interlocking Clamp.

"GJ-BOSS"
GROUND JOINT
FEMALE COUPLING
STYLE X-34

All parts steel or malleable iron, thoroughly rustproofed. Sizes 1/4" to 6", inclusive.

Stocked by Manufacturers and Distributors of Industrial Rubber Products

DIXON
Valve & Coupling Co.

GENERAL OFFICES & FACTORY—PHILADELPHIA 22, PA.
BRANCHES—CHICAGO, BIRMINGHAM, LOS ANGELES, HOUSTON
DIXON VALVE & COUPLING CO. LTD., TORONTO, ASSOCIATE COMPANIES:
Buckeye Company Inc., Garyville, Pa. Precision Valve Company, Camden, N.J.

APPRENTICE TRAINING

Construction Apprentice Programs Praised

• 10 Southern States Hold Fourth Apprenticeship Conference

» APPRENTICE TRAINING problems and techniques were reviewed by representatives of management, labor and state and federal agencies from 10 Southern states in a three-day meeting last month designed to stimulate interest in apprenticeship.

The fourth annual Southern States Apprenticeship Conference, held in Birmingham June 5-7, centered its attention on the adequacy of programs which train workers in order to keep up the supply of approximately 1 million skilled men needed in the industries of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Majority in Construction

Speaking on apprentices for all industries generally, W. F. Patterson, director of the Bureau of Apprenticeship in Washington, D. C., stated that "Perhaps the greatest contribution of apprenticeship to the defense effort so far has been in the construction industry."

Of the 8,255 apprentices who have completed their training since 1950 in the 10 Southern states, he estimated approximately 75% were in the construction trades. "Their manual skills are completely developed. Their contribution to the defense effort cannot be over-estimated."

He inferred, however, that the sudden rise of industries in the South since the beginning of World War II has created a heavy demand for construction workers to put the plants in place. Next and still coming is the development within those plants.

Importance of the Industry

W. A. Snow, manager of the Building Contractors' Division of the Associated General Contractors of America, told the conference that the prerequisite of national development and expansion in all concrete forms is the development of the construction industry which gives Americans their shelter and places of work.

Because construction is so vital to a strong America, the construction trade apprentice, without whom the construction industry could not keep up with the ever-increasing demand for more and better buildings, highways, bridges, plants and utilities, is one of

the most valuable workers in the American industrial scheme.

For this reason, Mr. Snow stated, apprenticeship programs in the construction industry must be constantly improved and must constantly turn out enough men to meet the heavy demand.

Responsibility of Apprentices

"Therefore all apprentices should pursue their on-the-job training and their related school instruction to the very best of their ability. They should take pride in their work and be proud of and loyal to their employer. They should also realize that while learning they are contributing their part to the construction of some needed facility."

In conclusion, Mr. Snow pointed out that both management and labor make a substantial and unselfish contribution to the training of apprentices on the job in the form of time, money and effort.

"It is the responsibility of the apprentice, to say the least, to do his very best at all times and to fit himself to take his place in the ranks of his skilled brother craftsmen upon completion of his training."

As a special feature of the conference, each company or group participating brought its outstanding apprentice to take part in the workshop sessions and to receive appropriate recognition for his progress.

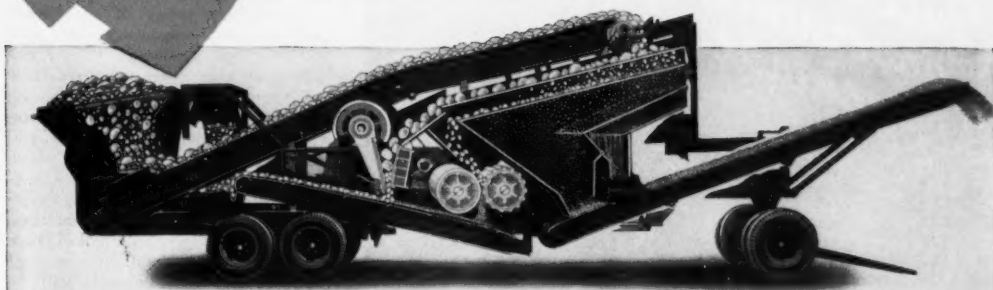
Other speakers who addressed the conference were Claude A. Putnam, chairman of the Executive Committee of the National Association of Manufacturers and a member of the Federal Committee on Apprenticeship; L. M. Smith, vice president and general manager of the Alabama Power Co.; William E. Walker, vice president of the International Association of Machinists; and F. C. Williamson, assistant professor, Trade and Industrial Education College, University of Alabama.

An A.G.C. Apprenticeship subcommittee composed of Fred Fisher, Fisher Construction Co., Houston; Ira H. Hardin, Ira H. Hardin Co., Atlanta, and Harrison W. Fox, Fox & Fox, St. Petersburg, met in Birmingham June 6 to consider and recommend changes in the criteria for the annual A.G.C. Apprenticeship Activity Award. A story of the 1952 award winner is on page 175.



designed for **MORE PROFITS**

WITH UNIVERSAL'S "SCALPING DECK" METHOD

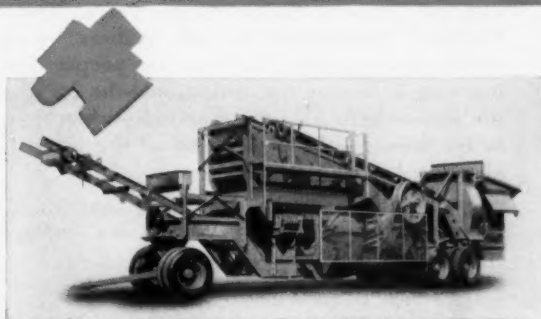


UNIVERSAL 880 GRAVELMASTER

Universal's "Scalping Deck" method of screening assures balanced loads to the jaw and roll crushers . . . provides greater efficiency and economy, protects screen, jaws, and rolls. You get better gradation of material, less jaw wear, less roll shell wear, longer screen life, savings in power, more effective use of screening area, faster material flow, greater plant output. These all add up to more tons per hour at less cost per ton with the new Universal 880 Gravelmasters.

Strictly for profit . . . buy a Gravelmaster. Get top engineering design. Get the rugged stability of a permanent installation plus ready portability to produce profitably anywhere.

Complete, compact Universal Gravelmasters are built in a range of streamlined sizes with capacities from 75 to 270 tons per hour. They're used extensively as complete gravel crushing, screening and loading plants, or to step up production as secondaries following a primary in quarry operations. For complete details on the size that meets your requirements ask your Universal distributor or write.



THE NEW UNIVERSAL 880 GRAVELMASTER SENIOR "R"

1036 roller bearing jaw crusher.

3022 roller bearing roll crusher.

Plant mounted power or side drive through universal joint from separate truck mounted power. An outstanding new high capacity Gravelmaster, designed to meet state highway weight limitations.

UNIVERSAL ENGINEERING CORPORATION division of PETTIBONE MULLIKEN CORP.

331 8th St., Cedar Rapids, Iowa
Phone 7105

4700 W. Division St., Chicago 51, Illinois
Phone Spaulding 2-9300





Reprinted from the Survey, Inc.

● Get the **LATEST** word on invitations and bid requirements and **GET IT FIRST**. Our Washington Service Bureau has daily contact with the Corps of Engineers, Air Force, Navy, and Veterans' Administration and gathers up-to-the-minute information. Bulletins are prepared showing who is issuing the invitation—the location of the job—where bids are received—when they are to be opened—the description of the project and all other available information.

YOU can receive these valuable reports without charge or obligation by completing this coupon and sending it to our Washington Service Bureau.



National Surety Corporation, Dept. C
413 Woodward Building, Washington 5, D. C.

Please add our name to your contractors' mailing list.
We understand there is no charge or obligation on our part.

Firm Name _____
By _____ Position _____
Street Address _____
City _____ State _____

APPRENTICE TRAINING

Navy Reviews Apprenticeship

The Bureau of Yards and Docks recently reviewed its apprentice training program to determine the correct proportion of apprentices to journeymen on Navy construction projects.

The hiring policy of the bureau will, as usual, remain consistent with existing local conditions. For example, in an area where organized labor is participating in the apprenticeship program, the ratios established by collective bargaining between unions and contractors will be adopted. But, on construction projects where the contractor has collective bargaining agreements covering employment conditions for the crafts, the stipulations of these agreements concerning the ratio of apprentices to journeymen will be used when any variance is experienced.

Pre-Training for Apprentices

Construction groups in Minnesota have sponsored a pre-apprentice training course which began last month in St. Cloud.

The purpose of the course is to teach the men the fundamentals of bricklaying before they become apprentices and thereby enable them to competently produce on the job from the very beginning of their apprentice training courses. This is good news to the contractors who give the job training that makes apprenticeship possible.

Eight Men to Begin the Course

Eight men from areas in the state are taking 352 hours of job training instruction and related subjects from Martin Gottwalt, president of the Bricklayers Conference of Minnesota, Bricklayers, Masons & Plasterers International Union and a member of the St. Cloud Board of Education, and from Levi Johnson, also a member of the Board of Education.

The students will be indentured to local Joint Apprenticeship Committees after the eight weeks course has been completed.

Sponsors of the course are the A.G.C. of Minnesota and the Minnesota Conference of Bricklayers in cooperation with the St. Cloud Board of Education and the state Division of Vocational Education.

Now... Four Sizes

GYRO-FLO portable compressors

Ingersoll-Rand Rotary Mobil-Air



*in capacities from
105 to 600 cfm*

On any portable compressor job, the revolutionary GYRO-FLO can make important savings in the cost of air power. Because there are now four sizes of smaller, lighter, more efficient GYRO-FLO rotary compressors, one of them should be just right for your job.

No other portable compressor offers you all of these weight and cost saving advantages:

- No valves, pistons, rods or clutch.
- Smooth, quiet, vibration-free operation.
- Compressor maintenance practically eliminated.
- Up to 40% lighter—20% smaller.
- Oil-injection cooling, independent of engine cooling.
- Delivers oil-free air at temperatures under 200°F.
- "Air-Glide" capacity control holds pressure constant within 10 psi range at any capacity, and with minimum engine speed.
- Matched to nationally known diesel or gasoline engines.

Your nearest I-R representative will be glad to give you the complete GYRO-FLO story.

GYRO-FLO
105

Capacity, 105 cfm at 100 psi.
Total weight, 2630 lbs. GM 2-51 diesel or Continental F-162 gasoline engine.

GYRO-FLO
210

Capacity, 210 cfm at 100 psi.
Total weight, 4630 lbs. GM 4-51 diesel or Continental M-330 gasoline engine.

GYRO-FLO
315

Capacity, 315 cfm at 100 psi.
Total weight, 5200 lbs. GM 3-71 diesel or Continental B-427 gasoline engine.

GYRO-FLO
600

Capacity, 600 cfm at 100 psi.
Total weight, 9500 lbs. GM 6-71 diesel engine.

766-2

An addition to the



CONTRACTORS'
COMBINATION

Compressors • Air Tools
Rock Drills
Turbo Blowers
Condensers
Centrifugal Pumps
Diesel and Gas Engines

Ingersoll-Rand

11 BROADWAY, NEW YORK 4, N. Y.

Allis-Chalmers AD-40

FIRST WITH BUILT-IN



You will do more and better work, do it easily and safely with the new Allis-Chalmers AD-40 motor grader. One big reason is the new built-in hydraulic power steering system—another Allis-Chalmers first in the motor grader field. The AD-40 is specifically *designed* to use this advanced system which retains the accuracy and roadability of mechanical steering . . . and adds the ease and smoothness of hydraulic steering. What's more, the hydraulic power steering unit is *inside* the head casting, with a short shaft to eliminate "spongy" steering. And hydraulic lines are enclosed in the frame . . . fully protected from external damage. See what **HYDRAGUIDE®**, the outstanding new power steering system, does for you on these jobs . . .



ditching is fast, accurate, complete. Hydraulic power goes to work for you the instant you start to turn . . . does most of the steering work for you. As a result you can turn far easier, far faster . . . work right up to culverts, poles or other obstructions before turning out.



plowing snow—always a tough job due to added front-end weight of either blade or rotary unit—becomes much simpler . . . much more accurate when hydraulic power steering goes to work for you.



muck, sand, soft ditches are back-breakers no longer. Thanks to power steering, you pilot the wheel rather than wrestle it. Because of it, you can blade and turn at the same time.

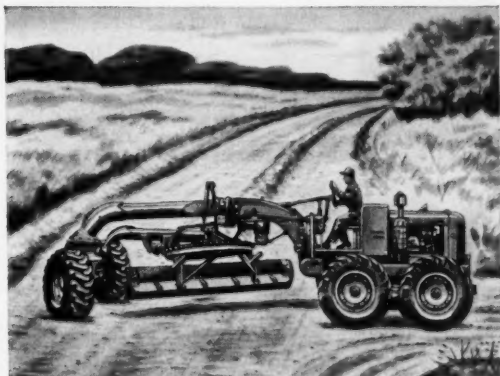
See your Allis-Chalmers dealer for the full story

the Newest, Finest line on Earth...

MOTOR GRADERS

A NEW KIND OF

POWER STEERING



turning around is quick, easy, safe. With built-in power steering you can turn with just one finger—even while stopped. Fast, precise control greatly cuts down interference with moving traffic . . . gives you safe command even on dangerous mountain turns.



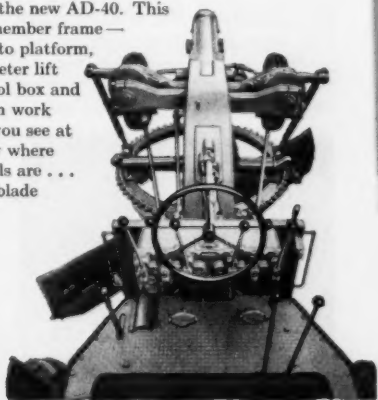
bank sloping is easier with the AD-40. Power steering gets you into position fast . . . lets you operate on steep slopes without the tiring "wheel fight" you've always known before. In addition, ease of control assures a smooth, even grade on every job.



holes and bumps cause no "wheel kick" because this new system cushions shock . . . keeps jolted front wheels from "steering back" at you. You turn only when you want to turn.

you get full visibility, too!

Here's the view you have from the platform of the new AD-40. This grader's single-member frame—from front axle to platform, its smaller diameter lift cases, low control box and tapered platform work together to let you see at all times exactly where your front wheels are . . . just what your blade is doing.



ALLIS-CHALMERS

TRACTOR DIVISION - MILWAUKEE 1, U. S. A.

APPRENTICE TRAINING



Randall Photos

Top four apprentices are left to right: Reno Carloni, winner; Willis Blush, 2nd place; William Luttmer, 4th place; and Harold Vandervan, 3rd place.

Boston Apprentice Trial Is "Power" Test

» THE PHOTOGRAPHER leaned over the low brick wall and asked the young man laying bricks to pause long enough for a picture.

Reno Carloni couldn't be bothered, he had a national contest to win.

And, when the judges' ballots were tallied, Reno stepped forward, shy, happy and king of apprentice bricklayers in the country.

Thus is told the story of the young man who won top honors in the Bricklayers Apprentice Contest during the 1952 Union Industries Show, old Mechanics Hall, Boston.

The contest began May 17 with 38 hopefuls entered from every part of the country and one from Canada. Four separate projects had been prepared for the contestants who were not permitted to see their own problem until starting time.

This was a "power" test; that is, speed was not a factor. Each man was permitted to work as carefully and as slowly as he desired. Mortar was always available beside the job. Each man had his trowel and level. Every difficulty was eliminated but the actual bricklaying.

Projects Got Harder

One thing was made certain. The projects got harder as the finals neared.

When the final round came up, Judge Palmer, an instructor at Wentworth Institute, handed the four remaining men a copy of the last project. It was later described as a "five-tiered, full-enclosed headache of bricks."

By 5 p.m. on May 23, the projects were completed, ready for judging. The outcome saw Reno Carloni, Local

No. 6, New Haven, Conn., crowned king of bricklayer apprentices by John Murphy, international secretary of Bricklayers, Masons and Plasterers International Union. Carloni was presented with a check for \$500 by Thomas F. Murphy, treasurer of the international union, sponsor of the contest. The Structural Clay Products Institute also awarded Carloni an all-expenses paid trip to Bermuda.

Second Prize, \$300 Check

Second prize money, a check for \$300, went to Willis Blush, Local No. 1, Washington, D. C. Blush is employed by the George Hyman Construction Co., Washington, D. C.

Harold Vandervan, Local No. 5, Muskegon, Mich., won third prize and a check for \$200. Fourth prize and a check for \$100 went to William Luttmer, Local No. 21, Chicago.

Show officials estimated that more than 700,000 persons attended the week-long industrial show held May 17-24. Judges in the contest besides Mr. Palmer were Lawson W. Oakes, a Boston masonry contractor and John McGaffigan of the Boston Bricklayers Local No. 3.

Others in Contest

Other apprentices appearing in the contest included James W. Walsh, Wilmington; Nelson Moscone, Melrose, Mass.; John P. Beam, Media, Penna.; Bobby Ray Roper, Temple, Tex.; Thomas Wheeler, Manchester, N. H.; Louis G. Grassi, Portland, Me.; Salvatore Vitrano, Dorchester, Mass.; Isaac Stettler, Belvedere, N. J.; John R. Ballman, Cincinnati; Henry Walker, Columbus, Ga.; Maurice Westfield, Buffalo; Theodore G. Flach, Park Hills, Ky.; Joseph Lang, Cheektowaga, N. Y.; Jack Enriquez, Riviera, Calif.; Roch E. Poitras, Danvers, Mass.; Daniel Cerutti, Albany; Marple Massey, Berea, Ohio; Leonard Cannatelli, Wilmington; James E. Fidler, Maple Shade, N. J.


Also, Floyd A. Currey, Dallas; Frank R. Volpe, Philadelphia; Howard Welsh, Jr., Biloxi, Miss.; John Schneid, Syracuse, N. Y.; Thomas Apzynski, Detroit; Richard Birchell, Ontario, Canada; M. Keith Summers, Logan, Ohio; Felix Piscitelli, Worcester, Mass.; Anthony J. Coppoletta, Cliffside Park, N. J.; Walter E. Rose, Chicago; Salvatore Carfi, Niantic, Conn.; Edward De Witt, Holland, Mich.; Wallace W. Casey, Manchester, N. H.; Richard Stretar, Cleveland; and Carl Otley, David's, Pa.



Winner Reno Carloni studies Bermuda folder, thinks of vacation.



Willis Blush receives 2nd place prize check from Thomas F. Murphy.



**confronted with
an oversize job?**
... or a small one?

RAYMOND

has equipment to do both!

*Driving Sectional Pipe Piles
Inside Building with Hammer
Mounted on Tournmotor.*



When you call in Raymond, you are turning your foundation work over to an organization which has specialized equipment, operated by expertly trained men, for pile jobs of any size. With 55 years of experience in foundation work ranging from a few test piles to more than 40,000 piles for one structure—Raymond has established a record for outstanding service.

THE SCOPE OF RAYMOND'S ACTIVITIES . . .

Soil Investigations, Pile and Caisson Foundations, Underpinning, Harbor and River Improvements and Cement-Mortar Lining of Pipelines by the Centrline and Tate Processes.

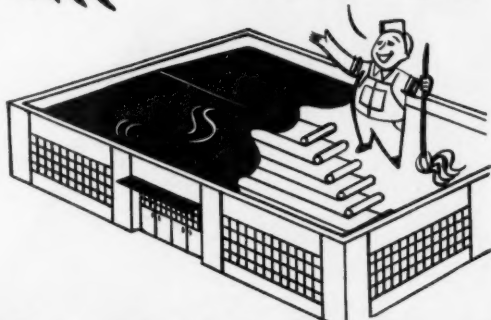
RAYMOND
CONCRETE PILE CO.

140 CEDAR STREET • NEW YORK 6, N. Y.

Branch Offices in Principal Cities of
United States and Latin America



◀ Looking up leads of Raymond Universal piledriver while driving precast concrete piles for Morganza (La.) Floodway Control Structure.



Yes—it's a Flexstone* Roof

Each ply is a flexible covering of stone!

• The secret of a Johns-Manville Flexstone Built-Up Roof is in the *felts*. They're made of fireproof, rotproof, enduring *asbestos*.

Give your customers that kind of all-out roofing protection.

The felts are perforated to make application easier . . . give a smoother job and conform better to irregularities in the roof deck.

To eliminate slag or gravel on dead-level or low-pitched roofs, Johns-Manville has developed a

new smooth-surfaced asbestos roof called Flexstone *Special* Built-Up Roof.

Send for your *free* copy of the new J-M Specification Manual on Built-Up Roofs . . . smooth-surfaced or gravel-surfaced . . . for any type of deck—wood, steel, concrete, or gypsum. Includes specifications for Asbestile* Flashing. Write Johns-Manville, Box 158, Dept. C, New York 16, N. Y.



*Reg. U. S. Pat. Off.

Made of ASBESTOS

Johns-Manville **FLEXSTONE** Built-Up Roofs

ASBESTOS CORRUGATED TRANSITE* • ACOUSTICAL CEILINGS

DECORATIVE FLOORS • MOVABLE WALLS • ETC.

APPRENTICE TRAINING

Gov. Warren Appoints Smith



R. A. Smith

R. A. Smith, president of the Southern California Chapter, A.G.C., and an executive of the P. J. Walker Co., has been appointed a commissioner of the California Apprenticeship Council by Governor Warren.

Mr. Smith's experience with apprenticeship training in the construction industry is extensive and presently he is chairman of the Los Angeles County Joint Carpentry Apprenticeship Committee. He is a graduate of Stanford University Law School and a veteran of World War I.

102 Journeymen for Houston

The fourth annual Houston Apprentice Completion Ceremony, held June 3, in Houston, marked the beginning of journeymen careers for 102 apprentices in the area, most of whom were trained in construction trades.

Welton A. Snow, manager of the national A.G.C.'s Building Contractors' Division, Washington, D. C., told the graduates that they were "entering into an industry that affords unlimited opportunity to serve the nation in times of peace as well as war."

Mr. Snow, principal speaker for the ceremony, stated that the current high volume of construction plus the drafting of young men into the services were creating a shortage of skilled workers in the construction industry. The apprenticeship programs in the nation are more important and necessary than ever before, he asserted, and opportunities for apprentices and graduates have never been so great.

He told the graduates to beware of contractors and labor bosses who cut the quality of the work to save time and reduce the costs. The journeyman, to be successful, must do his very best at all times, he advised. Contractors soon learn which men are competent and which are not. Doing shoddy work creates shoddy habits, he warned.

In conclusion he suggested that they be alert at all times to avoid unsafe practices, to work safely and take, as well as create, no unnecessary risks.

THE PLANT THAT HAS

STANDARD-IZED

A CONTINENT...



STANDARD
RB
ASPHALT PLANT

Profit IS THE REASON

It's the same in Canada, the United States or Mexico. One impelling reason makes operators buy STANDARD RB Asphalt Plants—PROFITS! That is why the RB has literally STANDARD-IZED a continent. Everybody understands money in the bank. The STANDARD RB puts it there for you through ruggedness and balanced design which eliminates the usual bottlenecks, giving higher capacity—smoother performance. You, too, can STANDARD-IZE for profits. Write TODAY for full descriptive literature.

UNIT BUILT — 8 SIZES, 500 to 6000 POUND BATCH CAPACITIES

STANDARD



STANDARD STEEL CORPORATION

5028 Boyle Avenue, Los Angeles 58 • 419-28 Commonwealth Avenue, Boston 15

IDENTIFICATION of Your EQUIPMENT

is simple and
Economical with

OUR PROCESS SCREEN PLATES

For Industrial Application
Applied in Enamel
Directly on Equipment
YEARS of USE and RE-USE



Illustrating the EASE and SPEED with which you can apply long-lasting identification on your equipment with perfect results.



Faster! More Economical!
Easier to Apply!

And the result will last for years.

We duplicate any design.

We are especially proud of our art work, be it original or duplicate, it is UNSURPASSED.

Write for details to either address

NATIONAL SALES OFFICE

H. R. LAZENBY

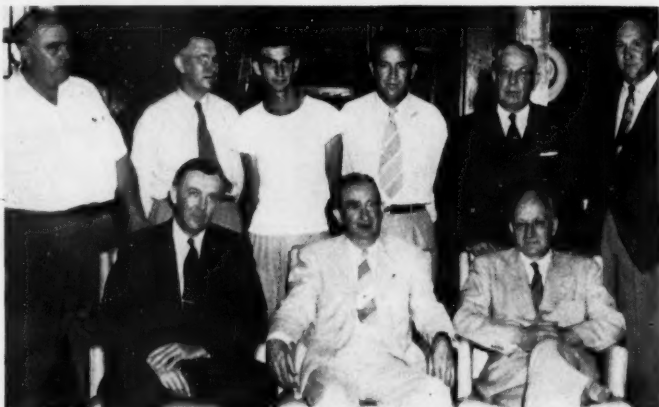
Box 719 Burwell, Nebr.

FACTORY

REINHART FAJEN

Box 115 Warsaw, Mo.

APPRENTICE TRAINING



Completion certificates were presented to 24 graduating construction apprentices from Charlotte and Gastonia, N. C., during a ceremony attended by more than 200 persons.

Guests from the A.G.C. were Robert Patten, managing director of the Carolinas Branch, and Mr. Snow, the principal speaker, who stated that in 1951, the construction industry in the United States.

Above, from left in front row: Mr. Patten; F. H. Shuford, state Labor Commissioner and Mr. Snow. Back row: John Lovett, secretary, carpenters' JAC; T. L. O'Kelley, Construction Apprentice Council coordinator; Holland Bost, graduate apprentice; E. G. Wilson, chairman, state Apprenticeship Committee; C. C. McGinnis, chairman, bricklayers' JAC and H. E. Selby, secretary, Charlotte area, Construction Apprentice Council.



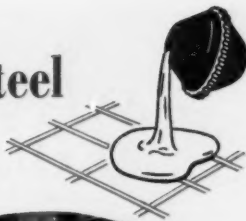
A Joint Carpenters Apprenticeship Committee handed out 27 completion certificates to apprentices in the Oklahoma City area recently.

Pictured above are some of the guests who attended and had a part in the graduation ceremony. Left to right, front row: John R. Stewart, minister, South Central Church of Christ; Jim Hughes, state Commissioner of Labor; James P. Mitchell, field representative of the federal Bureau of Apprenticeship; Ruth Ann Leslie, executive secretary, Oklahoma Builders Chapter, A.G.C.; Earl Tankersley, Tankersley Construction Co.,

Oklahoma City, president of the A.G.C. chapter; Ace Keeler, representative of the United Brotherhood of Carpenters; Robert M. Earley, state supervisor, Bureau of Apprenticeship; (back row) B. A. Swagerty, director, Adult Institute of Vocational Education; Lon Thomas, business agent, Carpenters Local No. 329; Robert Parks, Frederickson-Parks, Inc., A.G.C., chairman of the joint committee; Orval Lewis, and J. C. Hartley, carpenter members of the committee, and A. C. Gray, president of Carpenters Local No. 329.

The ACI Code proves it...

You don't have to buy so much steel when you use American Welded Wire Fabric



● Read the American Concrete Institute Code and it will show you how to save steel by specifying American Welded Wire Fabric.

Example:

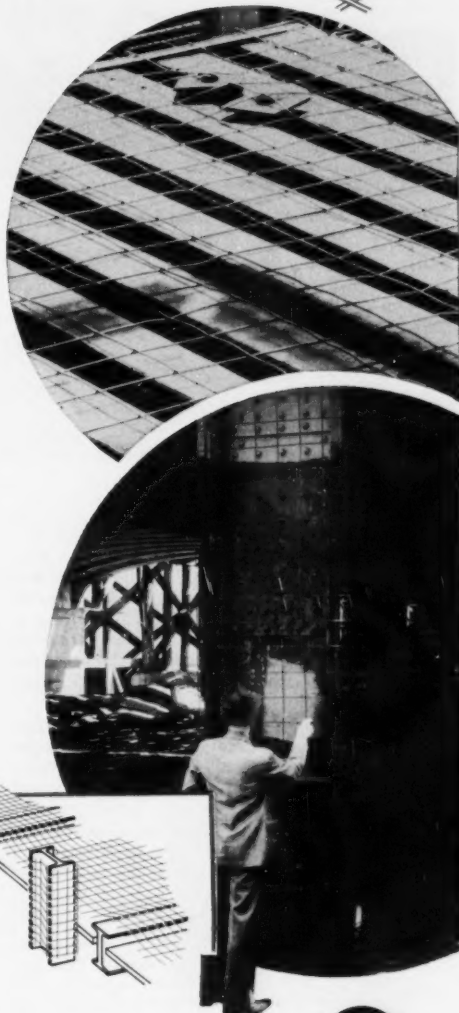
American Welded Wire Fabric is allowed a working stress of 28,000 psi for short span floor construction. That's 40% saving of steel over other types of reinforcing materials. Because the fabric is prefabricated, less labor is required—there is less steel to handle—it takes less time to place—there is less material to transport.

Example:

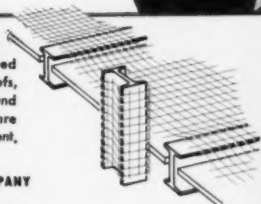
The specifications for reinforced concrete walls call for minimum ratios of steel area to wall area. If you use American Welded Wire Fabric, you can use 28% less steel area than with other reinforcing materials. You don't have to buy so much steel to get the strength you need.

These figures are impressive. They mean that you save critical steel when you use American Welded Wire Fabric. But just as important is the fact that you save critical labor. American Welded Wire Fabric is so easy to install that you just can't make a real comparison. Take slab construction: You simply unroll the fabric, lap the joints and you're done. No other reinforcement material can be installed so quickly.

Standard sizes of American Welded Wire Fabric are now readily available from jobbers' and dealers' stocks, supplemented by prompt mill shipments to identified projects. Present CMP Regulations assure adequate warehouse stocks of Fabric.



This sketch shows where American Welded Wire Fabric is used in modern concrete buildings. It reinforces walls, floors and roofs, can be draped over beams and girders and wrapped around pillars. Many uses of concrete in irregular structural shapes are made practical by American Welded Wire Fabric reinforcement.



AMERICAN STEEL & WIRE DIVISION, UNITED STATES STEEL COMPANY
GENERAL OFFICES: CLEVELAND, OHIO

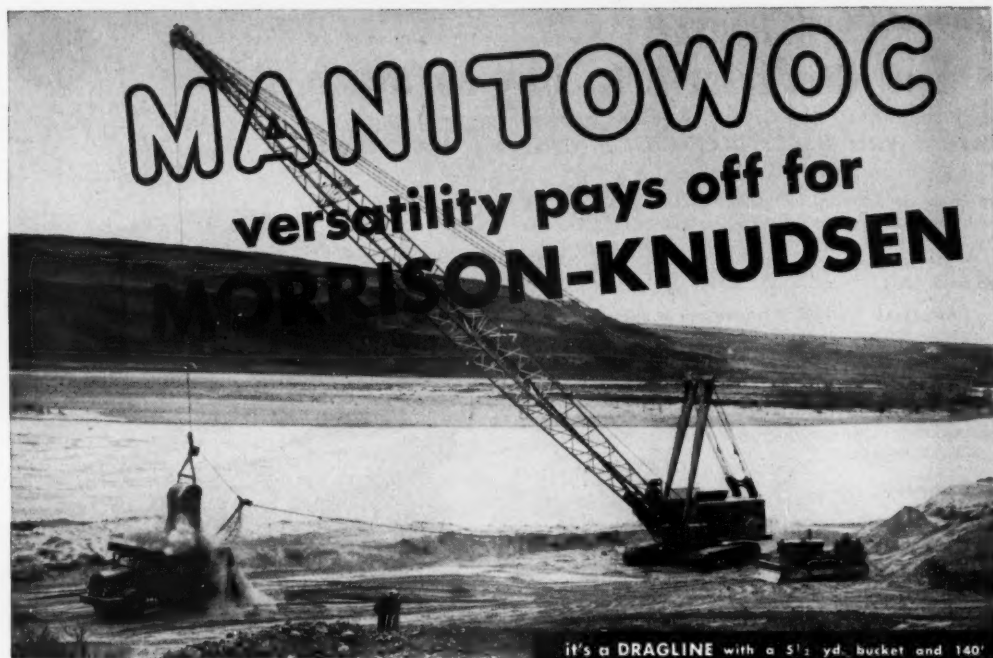
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA., SOUTHERN DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

Every type of concrete construction needs

U.S.S. AMERICAN WELDED WIRE FABRIC *reinforcement*



UNITED STATES STEEL



it's a **DRAGLINE** with a 5½ yd. bucket and 140' boom relocating a railroad at Tamar, Wash.

On the C. J. Strike Dam, Grandview, Idaho, the versatility of the big 5 yd. Manitowoc 4500 is really paying dividends for Morrison-Knudsen Co., Inc.; like it is for other contractors throughout the nation. One of these husky Manitowocs is handling a variety of jobs — alternating from dragline, to crane, to concrete setting as the situations arise—handling each job quickly, efficiently, economically.

Relocating a railroad at Tamar, Washington called for dragline work for a second 4500; then came a quick switch to shovel for the next job and a fast move to Kemmerer, Wyoming.

Not only are these large excavators "quick change" artists, but they can be shifted from location to location almost as fast as the ordinary small shovel. Ships on standard flat cars or trailers — erection time 3-5 days.

A Manitowoc 4500 will cut your costs too, give you small machine mobility and versatility plus big, low cost capacity. Get complete details. Manitowoc Engineering Works, Manitowoc, Wisconsin.



then it's a **SHOVEL** with a 5 yd. dipper and 50' boom transported to Kemmerer, Wyoming.



now it's a **CRANE** along with another Model 4500, erecting steel, turbines and pouring concrete.

MANITOWOC

SHOVELS
1-5 YD.

CRANES
18-100 TON

Needed—Well Trained Apprentices

• How A.G.C. of Minnesota Helps to Keep Them Coming

» THE TRAINING of apprentices is as vital to the construction industry as the heart is to the body. The vigorous and studied efforts of industry, labor union, state and federal government representatives over the last few decades have created the training programs which in turn have kept the construction industry's labor supply up to par.

Were it not for the large number of apprentices ready to take over jobs of retiring journeymen and to add to the increasing labor force of the industry, much of the tremendous and accelerating volume of construction put in place during the war years and since would today—and too late—still be on the planning boards.

The Associated General Contractors of America has been constantly active in the creation of apprenticeship programs which will produce the workmen sufficiently skilled to bring the construction buyer a fair return for his investment.

An important part of the association's apprenticeship program is the award it gives annually to the manager of the chapter which shows the most outstanding progress and accomplishment in apprenticeship. The award for 1951 and a check for \$100 was won by R. J. Hendershott, manager of the A.G.C. of Minnesota.

Minn. A.G.C. Is Thorough

The apprenticeship activities of Mr. Hendershott and his staff are extensive. The manager or a member of his staff are supervisors or consultants for and present at most meetings of 16 bricklayer joint apprenticeship committees, 15 carpenter, 2 cement finisher, 1 millwright, 1 floor coverer and 1 cabinetmaker committee. The chapter takes a very active part in the formation of joint apprenticeship committees with newly chartered local labor unions.

The chapter was a founder of the Twin City (Minneapolis and St. Paul) Area Joint Apprenticeship Conference of which a member of the chapter's staff is the executive secretary. The chapter also contributes financially to the Twin City carpenter and state bricklayer programs.

Mr. Hendershott and his staff were responsible to a large degree for recent legislation passed by Minnesota

for the improvement of apprenticeship programs and have been active in the constant revision, improvement and standardization of local and state courses.

Mr. Hendershott, as manager of the Twin City Building Employers Council, organized completion ceremonies for graduating apprentices in Minneapolis and St. Paul, and assisted in the organization of other such ceremonies throughout the state.

Much of the credit for the forming of state-wide apprenticeship conferences goes to the chapter as does credit for the governor's naming an apprentice week.

The chapter's efforts in bringing to the public both the urgency for new journeymen and the extent of the programs for apprentices have been effective and far-reaching.

Construction apprenticeship activities are reported monthly in the chapter's *Mason Training Bulletin* and weekly notes are published in its *Northwest A.G.C. News*.

Has Good Press Relations

The chapter, which has always made a point of keeping good relations with the daily and trade press, issued releases on all apprenticeship functions of special interest to the public and the industry.

Besides full newspaper coverage of these activities, the chapter has gained entry to radio and television mediums.

The chapter has designed special events in connection with apprentice training to catch the public's interest. An example of such an event is the bricklayer contest held during the State Fair in 1951. Public officials, spectators including women, tried their hand at bricklaying. The contest attracted over 51,000 spectators.

Through the stream of stories, bulletins, pictures and speeches which flow from the chapter office, the public, apprentices, journeymen, contractors, labor unions, and state and federal officials are kept in constant contact with the apprenticeship activities of the state and are thus afforded to assist in the improvement and give support to the programs which mean so much to the health of the construction industry and the quality and volume of the nation's new buildings, highways, dams, airports and bridges.



More work

Less cost

with foolproof
RUD-O-MATIC

TAGLINE CONTROL

HERE'S WHY:

You get *more work* out of a bucket that holds steady and is back in position *quicker* for another bite. Rud-O-Matic Taglines have ample coil spring power to provide constant tension for steadying the largest clamshell buckets at any angle of the boom.

You get *lower costs* through faster operation coupled with Rud-O-Matic's trouble-free service. No pins, weights or tracks to get out of whack, only the simplest of working parts. Compact — and easy to install on any crane.

Rud-O-Matic Taglines are made in 8 models for all bucket sizes, and are supplied with cable and installation equipment. Immediate delivery from your nearby equipment dealer — or send coupon below for details.



I'd like more information on Rud-O-Matic Taglines. Send literature and complete details.

Name

Company

Address

City Zone State

M'CAFFREY-RUDDOCK
Tagline
CORPORATION
2131 East 25th Street • Los Angeles 58, California

President Outlines 8-pt. Safety Program

• Conference Hears Public Relations, Business Advantages

» **WORK ACCIDENTS** in 1951 took the lives of 16,000 people, left 1,600 others totally and permanently disabled and partially disabled another 89,000. The cost—over \$4.75 billion.

These facts were emphasized by the President in his speech given to his Industrial Safety Conference held June 2, 3, and 4, in Washington, D. C., and attended by representatives of industry, labor unions and state governments.

Work accidents have increased 4%

in 1950 and 9% in 1951 because of the defense production program, the President said. The 2 million work accidents in 1951 caused "untold human suffering and misery. They represent an awful social waste. They represent a severe economic loss to individual workers, to business and industry, and to the entire nation."

To reduce industrial accidents, Mr. Truman recommended the following eight-point program:

(1) Improve accident analysis and reporting. (2) Improve guards used

on dangerous machines. (3) Emphasize safety education in plants and schools. (4) Every company organize a safety program. (5) More extensive worker participation in safety measures. (6) Modernize and standardize state safety codes. (7) Improve government safety programs. (8) Gain better public understanding and support of accident prevention.

Public Relations Stressed

The public relations advantages of a dynamic safety program cannot be underestimated, according to the assistant to the chairman of the United States Steel Corp.

J. Carlisle MacDonald told the conference that "safety . . . is the cornerstone of good public relations. If a firm has a dynamic, effective safety program, it will become known to its employees and neighbors in the plant community as a good place to work." U. S. Steel has reduced the frequency of accidents in its operations by 92% since 1912, he stated.

There is one thing that can be learned from the safety movement, the steel industry executive asserted: "Pioneers in accident prevention soon learned that proper safeguarding of equipment did not solve all safety problems. They learned, too, that ballyhoo, slogans, shows and stunts were not sufficient to cut the accident rate. *It was only when top management and individual supervisors started to assume responsibility for safety and when the cooperation of all was sought that progress was made* (italics added).

"The finest equipment, the best engineering and the most comprehensive rule book will fall down on the job if supervisors do not assume responsibility for safety in their departments and if there is no individual cooperation by all employees."

Safety Is Good Business

H. W. Anderson, vice president of General Motors Corp., told the conference that "The experienced plant manager knows that safety is good business. He knows that it is good business to accept safety as a management responsibility, to establish policies, procedures and practices under which every member of management will clearly understand that the safety of employees is a primary responsibility at all times, and it is not to be sacrificed or jeopardized in any way."

Proper safety devices free the employee from worries and permit him to give more attention to his job.

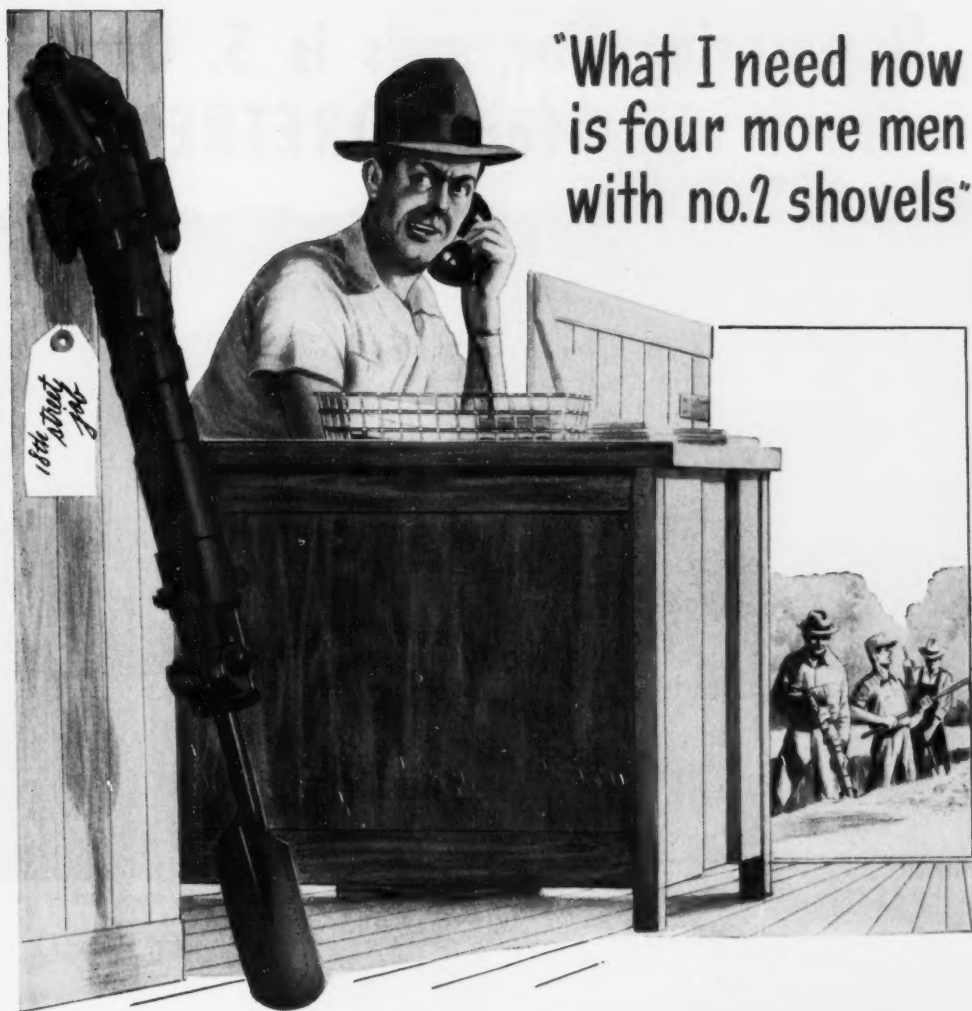


Two Californians Awarded for Safety

For having no lost-time accidents in 1951, Quinn & Conant, Los Angeles, a member of the Southern California Chapter, A.G.C., receives a certificate awarded by the national A.G.C. in its annual accident prevention program.

Making the presentation is R. A.

Smith, seated left, president of the Los Angeles contractor group. He is shaking hands with J. N. Quinn who stands behind his partner Lew Conant while W. D. Shaw, manager of the Southern California Chapter looks on.



"What I need now
is four more men
with no.2 shovels"

BUYING THOR CLAY DIGGERS presents only one problem—better get set to put on extra men to keep up with these amazingly powerful diggers! Available in three weight classes in handle styles, chucks and retainers to meet every clay digging requirement for trenching or tunneling. Write for free catalog. Independent Pneumatic Tool Co., Aurora, Ill.

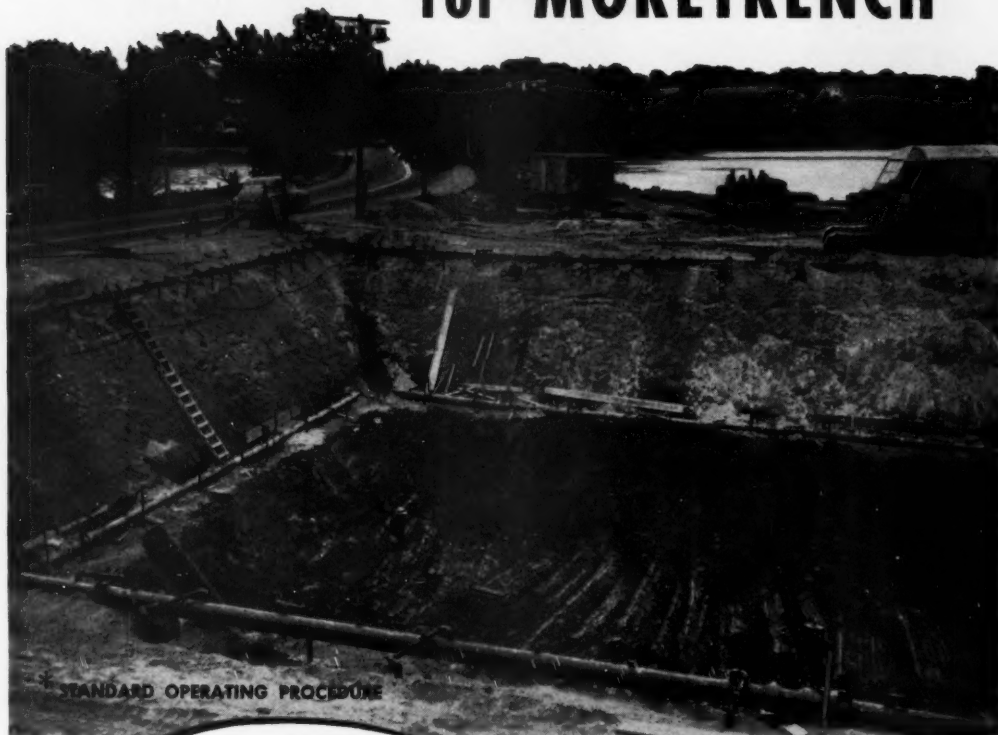


PAVING BREAKERS • CLAY DIGGERS • TRENCH DIGGERS
CONCRETE VIBRATORS • ROCK DRILLS • BACKFILL TAMPERS
SUMP PUMPS • NAIL DRIVERS • SHEETING DRIVERS
CEMENT HAMMERS • ELECTRIC HAMMERS AND SAWS

FACTORY SERVICE BRANCHES IN 20 PRINCIPAL CITIES



Dewatering fine soils is S. O. P.* for MORETRENCH



CONTRACTOR: "Are you sure your
wellpoints will work in
such fine soil?"

MORETRENCH: "We guarantee it!"

This is the Watchemoket Pumping Station in East Providence, R.I. Twenty-two feet of water in extremely fine sand and clay presented a pumping problem . . .

On May 31st pumping started at 2 P.M.
On June 1st, C. L. Guild Construction Co.,
Inc., E. Providence, was excavating "in the
dry."

The Moretrench combination of expert planning, careful installation,
and superior equipment gets results every time.
To guarantee your profit on a wet job, pump with Moretrench!

MORETRENCH CORPORATION

90 West St.
New York 6

4900 S. Austin Ave.
Chicago 38, Illinois

7701 Interbay Blvd.
Tampa 9, Florida

315 W. 25th St.
Houston 8, Texas

Rockaway
New Jersey

Canadian Representative: Geo. W. CROthers Limited, Toronto, Ontario

ACCIDENT PREVENTION

This means higher production per man, he asserted. The car industry, since 1947, has reduced its frequency rate from 9.5 to 6.2—an improvement of 35%. General Motors Corp., in the same period, reduced its accident rate by 50%.

Safety "means more production, greater efficiency and reduced waste. It means better employee relations," he concluded.

Safety is good business for small businesses too. This was emphasized by Ned H. Dearborn, president of the National Safety Council, in his address to the Conference on Industrial Safety.

The best solution to their high accident problem in the small industry group lies with the trade associations, he asserted. "In them the small employer probably has greater confidence—and with good reason—than he has in any other group or agency. . . ."

Representatives from the A.G.C. attended the three-day meeting. H. B. Alexander, H. B. Alexander & Son, Inc., Harrisburg, Pa., chairman of the A.G.C.'s Accident Prevention Committee, is a member of the Committee on Education, and Harry J. Kirk, national A.G.C. director of research and safety, is a member of the Committee on Laws and Regulations.

Indirect Cost of Accidents

The accident: A bulldozer operator attempting to pull a concrete mixing truck out of the mud suffered a fractured skull and the loss of an eye when the cable hitched to the truck snapped back and hit him in the face.

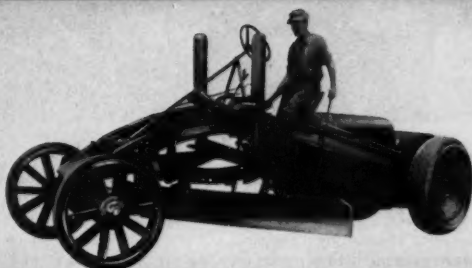
Direct cost: \$8,400 for compensation and medical aid.

Proximate results: This accident happened at the start of the work day and it took considerable time to get the men back on the job. Aside from this, there was a certain loss in production throughout the whole day due to the vividness of this accident in the minds of the men.

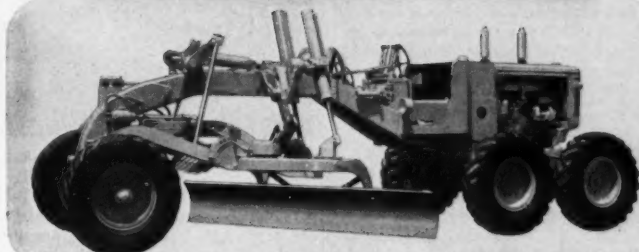
Indirect cost: The operator was a specialist and it took time and money to train a man to replace him while he was out.

Prevention: Stress importance to the men on adequately protecting themselves and their machines when they are towing other equipment.

WARCO built the first
motor grader... built the first
hydraulic-control grader...



WARCO is the first and
ONLY motor grader with cab-controlled
blade that reaches every position,
including 90°... eliminates manual



adjustment, cuts non-productive time,
speeds up the job...

WARCO
MOTOR GRADERS

4D-100 Heavy Duty

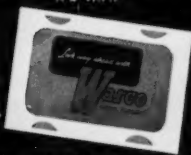
(100 H.P.)

4D-76 General Duty

(76 H.P.)

Ask your WARCO dealer
for slide-film showing
and demonstration.

W. A. RIDDELL CORP.
BUCYRUS, OHIO, U.S.A.



Builders of WARCO Motor Graders and HERCULES Road Rollers



Pittsburgh Contractors Get Safety Honors . . .

Awards won by members of the Constructors Association of Western Pennsylvania, A.G.C., in the national A.G.C.'s accident prevention program for 1951, were presented to represent-

atives of firms during a local ceremony in Pittsburgh. From left to right are R. W. Miller, Holmes Construction Co., certificate for second place for the firm's 10 year record in the Heavy

Division and for third place for its 1951 record; Edward Reason, Reason Construction Co., Inc., certificate for no lost-time accidents; Howard B. King, Burrell Construction & Supply Co., certificate for second place in the Highway Division group having the most exposure hours; C. H. Booth, Jr., Burrell Construction & Supply Co., first place plaque for the best five year record in the Highway Division; W. R. McQuade, Jas. H. McQuade & Sons Co., certificate for no lost-time accidents; R. C. Swank, Freeland Construction Co., certificate for no lost-time accidents; and H. H. Sturdy, Dravo Corp., Contracting Division, certificates for third place for the firm's 10-year record in the Heavy Division and for second place for its 1951 record.

These five general contractors are among the seven members of the Dallas Chapter, A.G.C., who operated during 1951 without a single lost-time accident.

Each year the national A.G.C., with headquarters in Washington, D. C., awards certificates to members who prove outstanding in its accident prevention program.

The program is carried on among its more than 6,000 members through the national A.G.C. and its 119 chapters. In 1951 nearly 400 members took an active part in the program which is designed to make the construction industry aware of the advantages of safety and reduce accidents.

Holding certificates presented in a local ceremony in Dallas are, from the left, Louis W. Hickey, Hickey & Co.; Joe L. O'Rourke, Jr., J. L. O'Rourke & Son; Abe Bock, Bock Construction Co.; Edmund Peterson, Peterson Construction Co., and J. Lawrence Jones. The two members not represented in the group are the W. H. Wallace Construction Co. and Tom P. Brennan, Inc.



. . . So Do Dallas Contractors . . .

The Dallas Chapter, with 88.25% of its membership participating, won second place in the 1951 national program in the association's small chapter division.



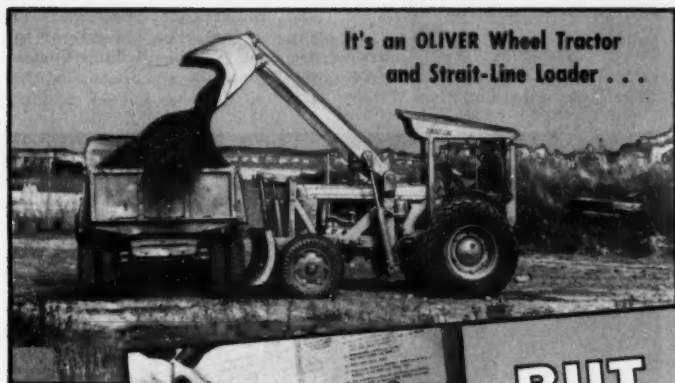
. . . And Houston A.G.C. Members

Here are representatives of seven of the eight member firms of the Houston Chapter, A.G.C., which received awards in the national A.G.C.'s 1951 accident prevention program for having no lost-time accidents.

From left to right are Robert E. Nesmith, Robert E. Nesmith, Inc.; Robert Brown, Robert Brown Construction Co.; Paul Woodruff, W. E. Woodruff Co.; I. G. Audish; W. J. Howard, Howard Construction Co.; Forney Fleming, Gerald Mora's firm; and J. C. Plank.

"Quick Change Artist"

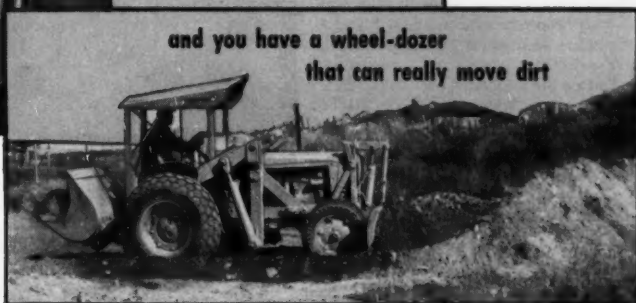
...that saves Your time and money!



It's an OLIVER Wheel Tractor
and Strait-Line Loader . . .



BUT,
push this
little lever . . .



and you have a wheel-dozzer
that can really move dirt

Now, it's an Oliver Wheel Tractor and *Strait-Line* Loader. But, push a little lever and *presto* . . . it's the most amazing bulldozer or angledozer you've ever seen.

You undoubtedly know the advantages of the *Strait-Line* Loader . . . the loader that digs in back, swings its load overhead, and loads in front. You know that the rear-carried bucket load multiplies traction . . . makes steering easy.

But now, you can get a "quick change" bulldozer

and angledozer blade for the *Strait-Line*. Just push the little lever and, quick as a flash, you switch from loading to dozing. Pull the lever . . . you're ready for loading. Remember, by carrying the loaded bucket in the rear, you get unparalleled traction that puts real "push" behind the blade. It makes wheel tractor dozing a reality! You can load trucks without dismounting the blade.

For informative literature see your Oliver Industrial Distributor or mail the coupon.

THE OLIVER CORPORATION

Industrial Division: 19300 Euclid Ave.,
Cleveland 17, Ohio

A complete line of industrial
wheel and crawler tractors



The OLIVER Corporation, Industrial Division
19300 Euclid Ave., Cleveland 17, Ohio

☐ Send me literature on "Quick Change" Bulldozer-Angledozer for *Strait-Line* Loaders.

☐ Name and address of my Oliver Industrial Distributor.

Name.....

Firm.....

Address.....

City.....Zone.....State.....

Evansville Chapter Gets A.G.C. Charter

• Composed of 15 Builders from Indiana and Kentucky

» THE EVANSVILLE Chapter was chartered May 28, in a ceremony marking the establishment of the 119th chapter of the national A.G.C.

The Evansville group had its origin as the Evansville Division of the Indiana General Contractors' Association. As an independent chapter, it takes in one county in Indiana and two adjacent counties in Kentucky and is composed of 15 building firms.

Snow Presents Charter

The charter was presented to Chapter President Don Dunham, Ryan Construction Co., by Welton A. Snow, manager of the national A.G.C.'s Building Contractors' Division, Washington, D. C.

Other officers are Charles Christen, Bauer Bros. Construction & Supply Co., vice president; and Albert J. Sweet who is executive secretary and also secretary-treasurer. Mr. Sweet's offices are located at 1204 First Ave., Evansville.

Evansville members are Aalco Construction Co., Anderson & Loer, Bauer Bros. Construction & Supply Co.,

Fiegel Construction Corp., Anderson & Veatch, Inc., Rust Construction Co., Ryan Construction Co., Allan Murphy

Construction, Peyronnin Construction Co., P & H Construction Co., Thorp Construction Co., Three A Builders, Inc., and Traylor Bros., Inc. The two members from Owensboro, Ky., are R. R. Williams Building Contractor & Supplies, and Clark Construction Co.



Don Dunham, left, president of the newly formed Evansville Chapter, receives the official charter from W. A. Snow, manager of the Building Contractors' Division of the national A.G.C., Washington, D. C.

Gifford Resigns Mass. Post

Allan E. Gifford, executive secretary of the A.G.C. of Massachusetts since 1946, resigned June 4, to continue trade association work in the construction industry in Mass. in another capacity.



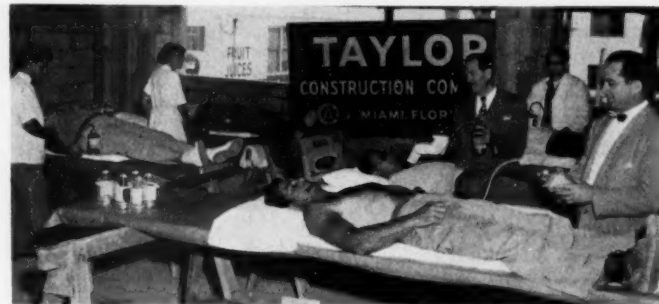
A. E. Gifford

Mr. Gifford is a member of the Massachusetts Bar, a former member of the Massachusetts Legislature and was on the legal staff of the office of the chief signal officer, U. S. Army. Thomas Gunning has been appointed acting executive secretary of the chapter.

New president of The Moles is David Bonner, vice president of Frederick Snare Corp., New York. The association of tunneling and heavy construction men, during its annual meeting in New York chose a new slate of officers for the year.

Blood Donated on Construction Jobs

Workers on three Taylor Construction Co. jobs in southern Florida spearheaded a blood donor program established recently by Miami's Mt. Sinai Hospital. Some 150 pints of blood were contributed by the men who thus established "credits" for themselves and their families for future use in the hospital. Three times doctors and technicians set up mobile blood bank units and took donations from Taylor men right on the job. Sixty pints were given by workers at a new luxury beach hotel, the Algiers, in Miami; fifty came from workers at the Lago Mar Hotel at Ft. Lauderdale and thirty-five pints from a third job in the area.



The JOY Champion sets absolutely new standards in blast-hole drilling. Months of operation in field after field have proved that it drills many times faster, and at far lower cost per foot, than any other drill on the market. Here's why...

REVOLUTIONARY DESIGN: The Champion Drill continuously pressure-cuts the rock with a rotating, tri-cone roller bit. It operates quietly, no deafening hammer strokes.

DRILLS DRY: No water-line or cold-weather freezing problems. Cuttings are instantaneously removed by an air-blast, and trapped and collected. The bit is always working on virgin rock, and even in dense, dolomitic limestone, bit life is exceptionally long.

NO LOST HOLES: Rigid drilling stem, plus controllable feed-pressure and rotation speed, prevent bit wander in bad ground—you finish every hole you start.

EASILY LOADED HOLES: The Joy Champion drills smooth-walled vertical holes, $5\frac{3}{8}$ " to $7\frac{3}{4}$ " dia., to any normal depth desired and as straight as a gun barrel. They load easier and safer, and give better blasting results.

Built in two models—the Joy Heavy-weight and Middleweight Champions—each with choice of diesel or electric drive. • Send us samples of your rock for a performance estimate.

ONLY JOY builds the CHAMPION BLAST HOLE DRILL



JOY MANUFACTURING COMPANY

GENERAL OFFICES: HENRY W. OLIVER BUILDING • PITTSBURGH 22, PA.

IN CANADA: JOY MANUFACTURING COMPANY (CANADA) LIMITED, GALT, ONTARIO

NOW ...an even better



AMERICAN Container-Cartridge



...for quicker loading
...for sure shooting

Already a favorite with experienced shooters everywhere, American Explosives' new 25-pound container-cartridge has been modified and improved by constant field research to provide even greater convenience in loading than before!

Strapped in bundles of two, these new American containers are easily handled, ready for use in jig time. You don't have to pick over the blasting area for empty cases when you're using these containers. Sure firing and even breakage are the results you expect—and get—from the whole American Explosives' line.

That's because all American Explosives are products of continuing research, rigid laboratory control and the latest production techniques. Cyanamid's American Explosives are available in a wide variety of densities, velocities and strengths. Why not make your next order American?

Capable Field Engineers Are Available At Your Call

High Explosives • Permissibles • Blasting Powder • Blasting Accessories



AMERICAN Cyanamid COMPANY

Explosives Department

30 ROCKEFELLER PLAZA • NEW YORK 20, N. Y.

Sales Offices: Pittsburgh, Pa., Bluefield, W. Va., Scranton, Pa.,
Chicago, Ill., Pottsville, Pa., Maynard, Mass.



Caterpillar Strikes at Equipment Shortage

» THE ADDITIONS to the Joliet, Ill. plant of the Caterpillar Tractor Co. represent a new approach to the manufacture of heavy earthmoving equipment—in one giant operation personnel will concentrate on producing scrapers, wagons, bulldozers, rippers, cable controls, hydraulic control units and replacement parts.

In this plant, under one roof, 697,040 sq. ft. house a tremendous, integrated production system aimed at meeting the demand for heavy construction equipment of all types at a competitive price.

Sprawled over 300 acres is a modern building which features exterior walls of sandwich-type metal siding

with inner and outer sheets of protected metal enclosing a fiber glass blanket—the steel sheets provide the strength and the fiber glass has an insulating effect equivalent to 13 inches of brick.

Within these walls some 3,600 employees, receiving more than \$1.25 million per month, work under the finest industrial plant conditions. The flooring is wood block over concrete—easier on the feet. Overhead fluorescent lights give a full daylight effect and the air is cleared of haze by a high-capacity ventilation and filtering system.

The Joliet plant is the largest of a \$35 million expansion program underway by Caterpillar. Other plans include expansion of the Peoria, Ill., plant and the construction of a new factory at York, Pa., which will cover about 360,000 sq. ft. of floor area and employ around 1,000 persons.

The demand for the company's products, according to a Caterpillar official, has been at a high level since the beginning of World War II and

has been augmented and intensified during the past year or so by the flood of orders from the military and the increased activity of defense supporting industries.

One of the major factors in locating the large plant at Joliet was the government's call for decentralization of industry.

According to Henry H. Howard, director of Caterpillar's sales, "Sales of heavy machinery continue strong in the world market despite a gradual shifting condition of the market itself, from a long delivery situation to a shorter one."

He stated that the knotty parts problem faced by the heavy equipment industry was a prime cause for the \$35 million expansion program. He also emphasized that the program included the results of research aimed at reducing cost of the machinery.

The Joliet plant, in producing the giant machines which fill the more than man-sized tires pictured below, requires its own water supply, 1,772 miles of welding rod, more than six miles of Mono-rail and some 6,000 gallons of paint per month.

For Quick Starts - A Gasifier

The gasifier is a fairly new device which enables engines to be started in less than 30 seconds in temperatures as low as -65 degrees Fahrenheit.

Originally developed for aircraft engines and currently being tested by the Army's Engineer and Development Laboratories at Fort Belvoir, Va., for the Corps of Engineers, the gasifier is hoped to save \$1 million worth of gasoline and \$2 million worth of man-hours.

The device supplements the carburetor for starting only and is essentially a pre-combustion chamber with a conventional spark plug. After a few minutes of operation it enables the engine to operate independently. It eliminates the use of an external heater, is simple to install and is inexpensive as there are no moving parts.

As operation of the gasifier requires cranking power, its value to the Corps of Engineers hinges on the solution of supplying this power at low temperatures. Studies of cranking methods have been underway for some time.





Hoist men, too!

THOMAS HOIST COMPANY now offers a safe method of hoisting men on tall building construction jobs.

By combining an automatic safety brake on the cage and an electric controlled speed limiting device on the hoist, Thomas Hoist Company man-hoisting equipment has been approved and used by many contractors on tall buildings in and around Chicago.

The usual setup has been a double well tubular steel tower with a man-hoisting cage in one well and concrete apparatus in the other well. After the concrete work has been done, a platform can be put on the bail in the second well to provide a material cage. Usually a Chicago Boom is also used.

The Thomas Band Friction hoists furnished have been either 50HP electric, 100HP electric or 60HP gas, or 100HP gas, three drum hoists.

The speed limiting safety device is connected to one drum. This drum also has a divider so that two cables can be attached to the man-hoisting cage, thus providing an added safety feature.

The man-hoisting cage can also be furnished in a single well tower together with a double drum hoist.



Write, Wire or Call . . .

THOMAS HOIST COMPANY

20 SOUTH HOYNE AVENUE

SEeley 3-0303

CHICAGO 12, ILLINOIS

Wagon—LaPlant-Choate Manufacturing Co., Cedar Rapids, Iowa. TR200 is hydraulically operated rear-dump wagon powered by 2-wheeled, rubber-tired tractor available with choice of Cummins 165 h.p. or Buda 176 h.p. diesel engine. Wagon is interchangeable with TS200 motor scraper. It is equipped with 4-wheel air brakes and 21.00 x 25 24-ply Rock Lug tires. Top speed is 22 m.p.h.



LaPlant-Choate TR200 motor wagon

Rammer—Complete Machinery & Equipment Co., 36-40 11th St., Long Island City 6, N. Y. Johnson high-jumping rammer for earth tamping and light pile or post driving is introduced from Europe. Rammer may be fitted with 10" heavy-duty base for large fill areas, 7½" base to tamp right up against walls or in narrow trenches, or light driving head for setting sheet piling, timber posts, etc. It is gasoline-powered. It has no carburetor. Gasoline is contained in tank surrounding piston, with steel wool to atomize fuel which rises to valve at head of piston. Magnetic handle, struck by operator each time rammer touches ground, causes spark that ignites fuel vapors and drives piston down, forcing machine up into air 16" to 18".

Concrete Water-Stop—Water Seals, Inc., 400 W. Madison St., Chicago 6. Labyrinth water-stop, for eliminating leakage between adjacent concrete pours, is nailed directly on inside of form. It can be cut by knife and sections can be joined by hot knife or torch. Stop is made of polyvinyl plastic, is ribbed, grooved and corrugated to form bond with concrete. Manufacturer states that plastic joint seal may be used in architectural concrete structures above ground level, for joints in foundation walls or between foundation walls and floors and for hydraulic structures where shrinkage openings no larger than ½" are expected. Water-stops are fully described in Bulletin LW-2 available from manufacturer.

Screeding Machines—Whiteman Mfg. Co., 3249 Casitas Ave., Los Angeles 39. Two new machines feature telescopic frames. Model RS-11 screeds slabs as narrow as 3' and wide as 15'. Heavy-duty Model 52-15 adjusts for slabs from 6' to 20' wide. Engines are mounted at ends of machines to eliminate sag of screed sticks. Attachments are available for overhead screeding.

Liquid Level for Pavers—Foote Co., Nunda, N.Y. Liquid level for attachment to "Adnun" black-top paver gives positive leveling control for black-top paving and spreading of aggregate. Level consists of reading glasses mounted vertically on cutter bar supports. As glasses are directly connected to each other, angle or movement of cutter bar affects bubble in reading glasses, assuring visual control of level of cutter bar.

Loader—J. D. Adams Manufacturing Co., Indianapolis 6. Self-propelled belt-type "Traveloader" has been re-designed to load material from stock piles as well as windrows. Spiral blades on full-floating feeder work material in to 14 curved blades which place material on revolving conveyor belt. Rear section of conveyor is adjustable from cab, providing wide range of discharge heights. Feeder, front of loader and rear section of conveyor are raised or lowered through hydraulic controls. Loader is powered by International industrial-type gasoline engine which also powers feeder and conveyor. Auxiliary transmission permits operating travel speeds from 0.23 m.p.h. to 25.5 m.p.h. Fenders and complete cab enclosure are optional equipment.

Torque Converters—Caterpillar Tractor Co., Peoria 8 Ill. Factory-installed torque converters are offered for 6 sizes of Caterpillar industrial engines—D397, D386, D375, D337, D318, D315, ranging from 70 to 500 brake h.p. With smaller, in-line engines—D337, D318, D315—power can be delivered to converters with or without clutch, or with clutch and reversing gear. Output arrangements include stub shaft or chain housing, latter available in 2 sizes. For 3 larger V-type engines—D397, D386, D375—converters may be installed with or without clutch. They may be directly coupled to engine or chain-driven. Stub shaft is provided on output end of converter. Torque converters are Twin Disc models that use ordinary diesel fuel as hydraulic fluid, making it possible to attach charging device that draws from engine fuel supply. Independent cooling system is also offered.

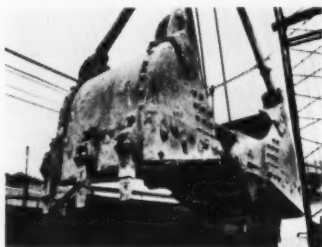
Glass—Libbey-Owens-Ford Glass Co., Toledo, Ohio. "Aklo Fine-tex" patterned glass for commercial, institutional and industrial buildings is designed to provide "filtered daylight." It is offered in ⅛" and ¼" thicknesses and may also be had in ¼" wired form for skylights and fire-retardant glazings.

Material Pumps—Lincoln Engineering Co., 5702 Natural Bridge Ave., St. Louis 20. New line of air-motor-operated pumps and accessories for automatic application of heavy to light materials, such as sealers, adhesives, roofing, waterproofing, insulating and caulking compounds is offered in 11 models for spray-gun, pole-gun and flow-gun applications.



Re-designed Adams "Traveloader"

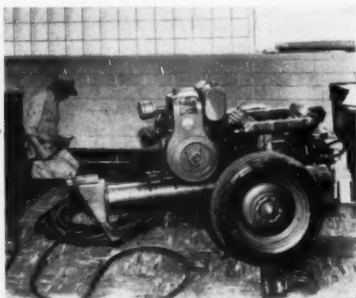
Bucket Tooth—Blaw-Knox Co., Farmers Bank Bldg., Pittsburgh 22. Reversible and replaceable cutter consists of base permanently attached to scoop and renewable tip which fits into slot and wedges itself into base. Bases and cutters are available for Blaw-Knox buckets now in use and blank bases (without drilling) can be applied to bucket sizes where bolt hole patterns come within range of base outline. Bulletin 2399 describing new accessory is available from manufacturer.



Blaw-Knox bucket tooth

Excavator—Findlay Division, Gar Wood Industries, Inc., Findlay, Ohio. Model 75 heavy-duty $\frac{3}{4}$ -yd. excavator features power-actuated drum clutches, direct right-angle drive, optional hydraulic coupling and new foundation borer attachment. It is also offered as 20-ton truck crane, mounted on 6 x 6 or 6 x 4 chassis. Machine is convertible in field to shovel, crane, dragline, clamshell, trench hoe or pile driver. Foundation borer combines boring and boring in one operation.

Concrete Cylinder Tester—Tinius Olsen Testing Machine Co., 2040 Easton Road, Willow Grove, Pa. Portable unit compression-tests standard 6" x 12" and 8" x 16" concrete cylinder specimens on job. Specimen is placed between 2 compression surfaces, upper of which is self-aligning. Load is applied by hand piston pump; loads are indicated on gage provided with maximum load pointer. Standard gage indicates loads from 30,000 lbs. to 300,000 lbs.

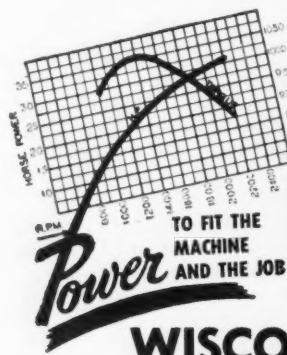


Concrete Finishing Machine—Flexible Road Joint Machine Co., Warren, Ohio. "Detroit Special," for street, expressway and airport concrete construction, features portability. It lifts itself off paving forms onto its built-in, pneumatic-tired trailer. Hydraulic tongue lifter spots tongue for attachment to batch truck or other towing equipment. Two automobile-type pneumatic-tired wheels nest in frame of machine as it is working on forms. When it is to be moved, flick of switch lowers wheels and whole machine becomes trailer. Machine is telescopic to conform to any width work. It is made in 3 basic sizes to finish widths from 10' to 27'. Screeds are both mounted on outside of frame. Off-set screed attachment is provided for integral curb work.

Spreader Box—Wood Manufacturing Co., P. O. Box 620, North Hollywood, Calif. Machine for measuring and forming stabilized base, road-mix or hot-plant materials into uniform windrows is 4-wheel-mounted and has screw-lifting adjustable tail gate. Unit attaches directly to dump truck and measures materials as truck moves along. Material flows from truck through adjustable gate and onto base in one operation. Windrow capacities up to 8 cu. ft. are controlled by adjustable tail gate.



This special testing tower was created for Chain Belt Co. to test their "Rex Pump-crete" machines. Assembled from standard Saffay scaffold frames, tower supports pipe through which concrete is pumped. Test tower proved that concrete could be pumped to maximum height of 100' with an adequate factor of safety.



WISCONSIN-POWERED Ingersoll-Rand Compressor

Wheeling a modern, mobile compressor to any spot it's needed is easy when it's an Ingersoll-Rand. Then doing a day's work on location is also a "sure thing" if a Wisconsin Heavy-Duty Air-Cooled Engine supplies the power.

The search for full-rated power that's dependable ends almost always with Wisconsin Engines . . . first choice everywhere, 3 to 30 hp. For example, every Wisconsin Engine crankshaft rides at both ends on tapered roller bearings, reducing the chance of bearing failure. Also, Wisconsin Engine magnetos mount on the OUTSIDE for easy servicing, but most important each magneto is equipped with an impulse coupling for quick starts in any weather. Steady running is assured, too, because of fool-proof air-cooling, summer and winter. Follow the lead of many who say, "Wisconsin Engine Power fits the machine and job." And, write today for "Power Magic" covering all 4-cycle single-cylinder, 2-cylinder and V-type 4-cylinder models, 3 to 30 hp.



WISCONSIN MOTOR CORPORATION

World's Largest Builders of Heavy-Duty Air-Cooled Engines
MILWAUKEE 46, WISCONSIN



OWEN

The Universally Popular

BUCKETS

ARE IDEALLY ADAPTED TO ALL
KINDS AND MAKES OF CRANES

There are dozens of types and kinds of cranes—each with its own features but *one* outstanding clamshell bucket.

Observe these various machines in action and you'll find an impressively large percentage of them equipped with Owen Buckets.

This preference has been gained through years of unequalled digging ability, speed of operation and durability.

You can obtain an Owen Bucket from us exactly suited to your present crane or have it delivered as a part of the complete crane unit.

For the utmost in performance and service *on any crane* investigate and purchase an Owen Bucket. Write for the Owen Catalog.

"A MOUTHFUL



AT EVERY BITE"

THE OWEN BUCKET CO.

7750 Breakwater Avenue • Cleveland 2, Ohio

Branches:

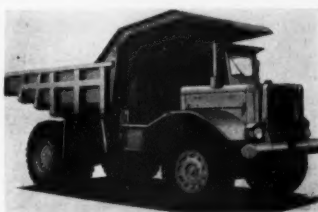
New York, Philadelphia, Chicago, Berkeley, Calif.

Equipment Cleaner—*Aeroil Products Co., South Hackensack, N. J.* "Auto-Steam" vapor steam cleaner, for cleaning motors, chassis, wheels and bodies, is one-man-operated, is controlled from visible panel. Variety of chemicals may be used without pre-mixing. It generates 100 lbs. of steam pressure in 90 seconds. It is equipped with 1/2 h.p. motor, has capacity of 120 gals. per hour and 75 to 110 lbs. working pressure. Atomizing burner is sootless. It is equipped with naval bronze rotary water pump. It automatically stops when water supply fails. It is available in several models, designs adapted to type of service required.

Scraper—*Woodridge Manufacturing Co., Sunnyvale, Calif.* TC-190 is 22-yd. tractor-drawn scraper with capacities of 19.0 cu. yds. struck and 22.0 heaped. Tires are 21:00x24 front, 24:00x25 rear. Side cutters of manganese alloy steel are bolted on to protect bowl side sheets. Optional over-sized side cutters of extra thickness and strength are offered for

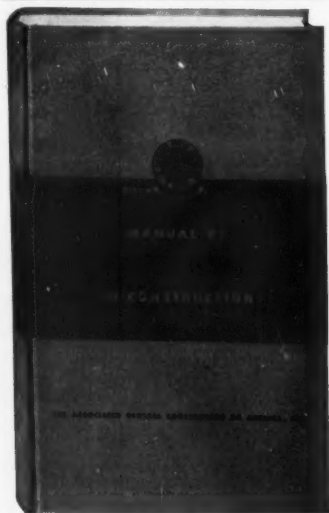
rocky terrain and extremely tough material. Ejector pivoted at blade base provides fast dumping with less tractive effort. Low gravity center with high ground and yoke clearance aid maneuverability.

Dump Truck—*Kenworth Motor Truck Corp., Seattle.* Model 801 end-dump earthmover has 30,000 lb. capacity. Body capacity, struck, is 9.9 cu. yds., heaped, 11.9 cu. yds. It has full anti-friction bearing-mounted, power-assisted steering gear, offset cab for good visibility.



Kenworth Model 801

Two-Way Radio—*Motorola, Inc., 4545 W. Augusta Blvd., Chicago 51.* New line of radio communications equipment operates in 450-470 mc. band. Under FCC regulations, those previously eligible for assignments in lower frequency bands, but restricted because of spectrum congestion, will now be able to obtain FCC approval in 450-460 mc. band. 460-470 mc. band, known as Citizens' Radio Service band, is available to individuals and firms ineligible under previous regulations. New receiver design features include sealed silver-plated cavities for optimum R. F. signal pre-selection characteristics, triple conversion in conjunction with "Permakay" filter, automatic frequency control and standby drain-saver circuit. Transmitter employs 9 tubes. Military-proved 2C39A tubes are used in tripler-driver and grounded grid final amplifier stages. Nominal output power is 20 watts. Line includes mobile units for 6 or 12 volt DC operation. Associated base station models are available with local or remote-control facilities.



THE ASSOCIATED
GENERAL CONTRACTORS
OF AMERICA, INC.

1227 Munsey Building • Washington 4, D. C.

the new 1949 edition of the

MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION

published by THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

- ▶ Presents the practical and common-sense approach to the subject of safety in construction and the prevention of accidents.
- ▶ Makes clear by illustrations, specifications, simplified text, the safe way of performing construction work—emphasizes costly results of incorrect, unsafe practices.
- ▶ 264 pages, 100 photographs and drawings—larger, more complete and more fully illustrated than any previous edition.

6 x 9 inches • 264 pages • per copy \$3.00

per dozen \$30.00 • per hundred \$210.00

Send check or money order to:

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
1227 MUNSEY BUILDING, WASHINGTON 4, D. C.

GENTLEMEN: Please send.....copies of the MANUAL OF ACCIDENT
PREVENTION IN CONSTRUCTION to:

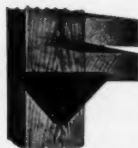
Name.....

Address.....

City.....Zone.....State.....

Williams Vibra-Lock Form Clamps . . .

employ the use of Super-Hi Tensile Tie Rods which effect a saving of at least 50% in steel and handling charges that would normally be required to obtain the same factor of safety. Williams patented feature of tying and spacing forms externally (nail-in-stud) eliminates any internal washers or spacers and results in a better finish for architectural concrete and a positive disconnection of 1½" or more back from the surface. Both sides of the form may be erected and the clamps installed later, eliminating interference with the carpenter by clamp crews.



Water supports.

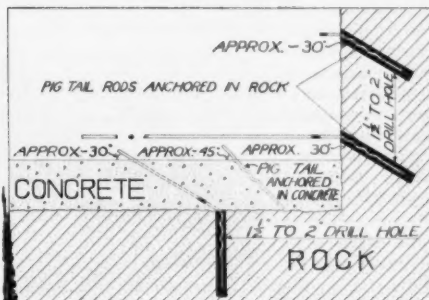
Price \$6.05 per C for 4"

Price 9.08 per C for 6"

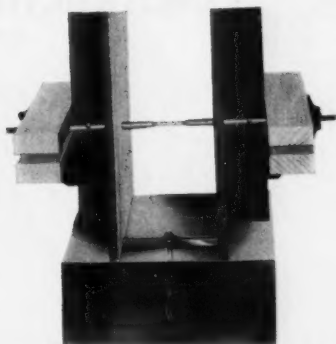


Hickey Rod Splicer

Price 30¢ ea.

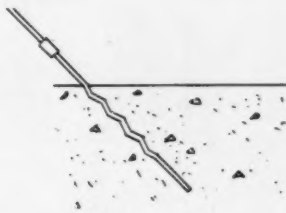


Pigtail Anchors in drilled holes in Rock or Shale.



Williams Clamps showing nail in stud spacing—water support—and form aligner.

Form aligner \$11.80 per C for 8" wall

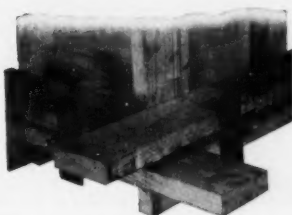


½" x 24" Pigtail Anchor . . . \$18.67 per C

Allowable Working Load . . . 13,000 lbs.

Ultimate Tensile Strength . . . 17,000 lbs.

½" Couplings . . . \$7.66 per C



WILLIAMS OUTSIDE CORNER CLAMP

Used on any 4" or 6" Double Water.

For complete information and prices write for our catalogue "Form Engineering #1952"

WILLIAMS FORM ENGINEERING CORP.

BOX 925 MADISON SQUARE STATION — GRAND RAPIDS, MICHIGAN



HELTZEL HELPS CONSTRUCTION DOLLARS GO FURTHER

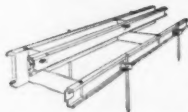


SAVING
COST AND
TIME ON A HOSPITAL
CONSTRUCTION JOB

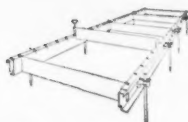
PROBLEM: To set a curb fast enough to be completed for a paving job scheduled on the following day. Available labor lacked special skills and experience.

ANSWER: Standard Heltzel dowel joint curb forms were used on the job with economy of time and money. Common labor on the job easily managed setting of the forms because Heltzel forms are designed with exclusive, practical aligning and staking devices.

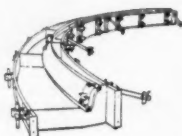
● For more than 40 years Heltzel forms have been recognized as "tops" by leading contractors and engineers in the construction industry. This reputation results from Heltzel Engineers working closely to requirements of form setters and specification engineers. Heltzel Steel Forms, both standard and special, are illustrated and described in Bulletin L-20. Write for your copy and see where Heltzel can make your construction dollars go further.



COMBINED CURB AND GUTTER FORMS



HELTZEL SIDEWALK FORMS



HELTZEL RIGID RADIUS FORMS



HELTZEL FLEXIBLE FORMS



The Heltzel Steel Form & Iron Company

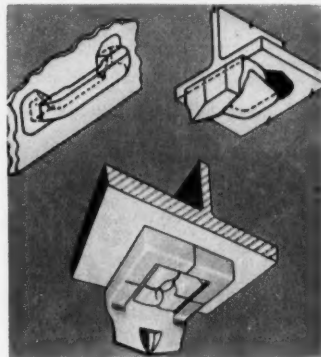
Construction Equipment Since 1910

WARREN, OHIO



NEW EQUIPMENT • MATERIALS

Welding Connector—J. H. Williams & Co., 400 Vulcan St., Buffalo 7, N. Y. New adjustable clip for assembling structural steel for welding is known as K8A. It offers $\frac{1}{4}$ " adjustment and overcomes column variations from true straight condition caused by tolerances permitted in mill-rolled columns. It supplements standard K3 connection used in Saxe welded erection system.



Williams adjustable welding connector

Truck Mixer—T. L. Smith Co., 2853 N. 32d St., Milwaukee 10. New "Smith-Mobile" has rear engine drive. Mixer drum has been moved forward so front axle will carry greater portion of load. Design provides shorter wheelbase truck and easy accessibility to engine and transmission.



New "Smith-Mobile" with rear engine drive

Ripper—Peterson Tractor & Equipment Co., San Leandro, Calif. Heavy-duty 15-ton ripper is capable of penetrating 60" in tough material. Center is designed for 3 depths of penetration—60", 48", 36"—outside teeth for 2 depths—48" and 36". Machine weighs 30,000 lbs., is 9' wide, 25'6" long, 9'9" high. Wheel width is 18" and rooter shank is 5"x 15".

for
REACH and SPEED
—the paver
for any pouring job



LOOK at the picture above—one machine that can place itself in any location—no expense for purchase or operation of a hoisting mechanism—no extra cost for truck equipment—minimum operating crew! Here is pouring at low cost.

MultiFoote brings you the greatest combination for mixing and pouring concrete you can find anywhere. One unit with the MultiFoote HighLift Boom permits you to mix and pour three stories up and then by simply lowering the boom or with a simple change in booms where extra long HighLift Booms have been used, you are equipped for pouring slab at a speed that has seldom been equalled.

MultiFoote Pavers have established records for pouring slab at the rate of a mile a day. With the MultiFoote you are ready to bid on a wide range of contracts and three sizes of MultiFoote Pavers from a 27-E Single Drum to the big 34-E DuoMix care for practically any capacity problem. Ask for details.

THE FOOTE COMPANY, INC.

Subsidiary of Blaw-Knox Co.

1908 State Street Nunda, New York

**FREE YOUR CRANE for other Work
with a MultiFoote HighLift Boom**



MultiFoote 34-E DuoMix getting out 50 batches an hour even with difficult traffic conditions impeding trucks.

MULTIFOOTE PAVER
FOR EVERY PLACE CONCRETE MUST BE POURED



See your equipment dealer now
and select from these **MASTER**
COST-SAVING PROFIT-MAKERS



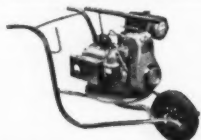
Vibratory Concrete Finishing Screenshot. Sizes 6' to 36'. Catalog No. 942



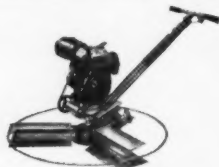
Gas or Electric Concrete Vibrators. Catalog No. 964.



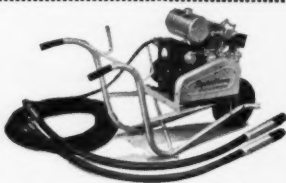
"Power-Blow" Electric Hammer and Spade. Catalog No. 981.



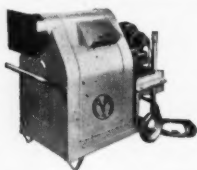
Portable Gas—Electric Generator Plants size 500 to 17000 Watts. Catalog No. 985.



Gas or Electric-Turn-A-Trowel. Sizes 34" or 48". Catalog No. 939.



"Master Champ" Hycle Vibrator. 10,300 R.P.M. Catalog No. MV-992.



Master Space Heater, 200,000 B.T.U. per Hour. Catalog No. MV-1010.



Hand Tools for all Master Flexible Shaft Vibrators. Catalog No. 964.

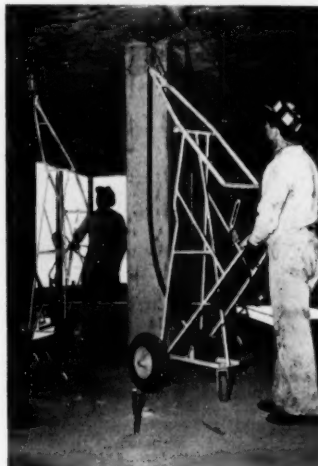
MASTER VIBRATOR COMPANY • DAYTON 1, OHIO

MASTER

BETTER PRODUCTS FOR BIGGER PROFITS

NEW EQUIPMENT • MATERIALS

Concrete Grinding Machine—Concrete Grinding Corp., 300 Straight St., Paterson, N. J. Machine for grinding concrete ceilings known as "Giraffe" eliminates need for scaffolds. Adjustable for heights from 7' to 9', it is 28" wide, wheel-mounted and weighs 148 lbs. Patented grinding head is adjustable and various stones are available for different grinding needs. It is powered by $\frac{3}{4}$ h.p. Mall motor operating on 110-V A.C. or D.C. power, connected to grinding head through 7' flexible shaft.



Concrete Grinding Corp.'s "Giraffe"

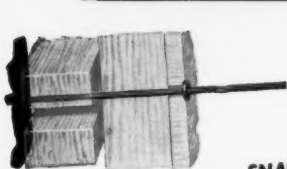
Lightweight Building

More research into lightweight building construction is planned by the Metal Lath Manufacturers Association. By reducing weight of partitions and fireproofing, tons of critical structural steel can be saved in the framing of a modern building, G. J. Casey of Truscon Steel Co., newly elected president of the association, says. Last year the association worked with allied groups to develop a new lightweight plaster partition which will retard the spread of fire for 2 hours.

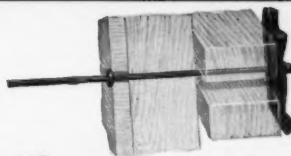
Intensified research and testing programs are planned this year. Underwriters' Laboratories will conduct fire tests on structural columns which have been fireproofed by a new combination of metal lath and lightweight aggregate plaster.

For Dependable Concrete Forming...

USE **SUPERIOR** CONCRETE ACCESSORIES



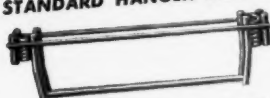
SNAP TIES



STANDARD COIL TIES



STANDARD HANGER FRAMES



SPECIAL HANGER FRAMES



CONE-FAST COIL TIES



ROD CLAMPS



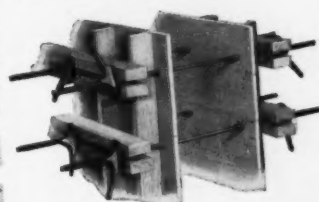
PANEL LOCK BOLTS



**DOVETAIL ANCHORS
AND SLOT**



**ADJUSTABLE
SCREED CHAIRS**



TILT LOCK CLAMPS

Here you see several of the many various types of Form Ties, Anchors and other concrete accessories which SUPERIOR'S many years of know-how and dependability have produced to meet rigid job specifications.

Every item in the SUPERIOR line is specifically designed to provide the most efficient forming method for ordinary foundations, engineering structures, watertight walls and architectural concrete.

When you plan form work, Superior's experienced engineers are always available to prepare suggested layouts of form work as well as complete estimates and quotations.

SUPERIOR CONCRETE ACCESSORIES, INC.

4110 Wrightwood Avenue, Chicago 39, Illinois
New York Office, 1729 Broadway, New York 19, N. Y.
Portland Coast Plant, 12108 Williams St., San Leandro, Calif.

Request a copy of our new catalog...
it contains a valuable table for spacing
studs, wales, and form ties.

BLADES

AND CUTTING EDGES
of Superior Quality by
Shunk

For all makes and types of road building and road maintaining machines. Also —

**BULLDOZER BLADES
BUCKET LIPS
PATENTED
SCARIFIER and
ICE and SNOW
REMOVAL BLADES
MOLDBOARDS
SCARIFIER TEETH**

All widths, lengths, and thicknesses; accurately punched to fit your make of machine.

Write for bulletins and other information.

Shunk

**MANUFACTURING
COMPANY**
Established 1854
BUCYRUS, OHIO

"BERG" CONCRETE SURFACERS



"Berg" Concrete Surfacers are extensively used for surfacing and finishing applications on all types of concrete construction.

Various interchangeable Heads and Attachments are available for grinding, wire brushing, sanding and polishing applications.

**THE CONCRETE
SURFACING MACHINERY CO.**
CINCINNATI 32, OHIO

NEW EQUIPMENT • MATERIALS

Screen-Loader—J. C. Corrigan Co., 41-47 Norwood St., Boston 22. New machine combines screening, conveying and loading of sand and gravel. It consists of basic 40' Corrigan portable 24" troughed belt conveyor, removable feeding hopper at foot end and single-deck vibrating screen and 2 chutes at head end, all in one unit.



Corrigan screener-loader

Bucket scoops up raw aggregate and dumps it into bar-screened hopper from which scraper conveyor carries material to vibrating screen and chutes that distribute gravel and sand to separate trucks. Handling capacity is 1,000 tons per day. Conveyor is powered by 15 h.p. Wisconsin

heavy-duty 4-cylinder air-cooled engine. It is tired with heavy-duty truck-type pneumatic tires. Swivel wheels may be turned at right angles to machine. Hopper is 6' square supported by stiff legs. Inclined grizzly with bars spaced 4" apart screen larger stones and rocks. Slide gate regulates flow of material onto belt.

Crane—Pitman Manufacturing Co., 300 W. 79th Terrace, Kansas City 5, Mo. Model B "Hydra-Lift" has hydraulically powered boom that can be mounted on frame of any truck 1½ tons or larger. It requires 40' behind cab of truck, has loadline capacity of 6,400 lbs. and swinging boom which telescopes from 12' to 17' to 22'. Improvements over original model, introduced in 1950, are increased safety margin and fact that it is shipped almost completely pre-assembled. Safety margin has been increased by raising about 18" point on crane's mast where topping cable is anchored, resulting in wider angle between boom and topping cable. Bail bar has been added to topping cable to strengthen rigging. Swivel boom-tip casting replaces hammer-head boom-tip casting, permitting use of crane in closer quarters.

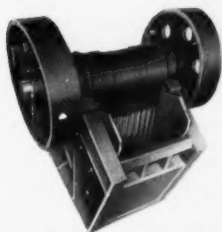


A Hughes-Keenan swing crane mounted on an International TD-14A crawler does most of the heavy lifting on this Atlanta paving job. The contractor, Ballenger Paving Co., Greenville, S. C. (A.G.C.) uses swing crane to load heavy equipment on trucks and to set up the paver. In addition, crane pulls special drag log mounted on rails, to bring subbase to final grade. Shown is 10½' drag preparing the base for a slab of pavement.

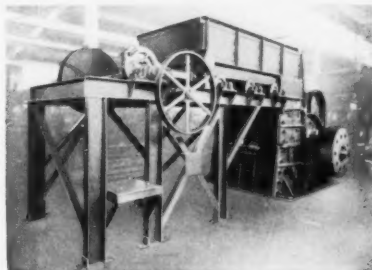
GRUENDLER STURDILY BUILT EQUIPMENT

ASSURES MAXIMUM PRODUCTION, ECONOMICAL SERVICE AND LONG LIFE

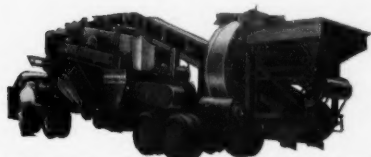
A FEW OF THE INDIVIDUAL UNITS SHOWN HERewith THAT ARE GETTING THE JOB DONE



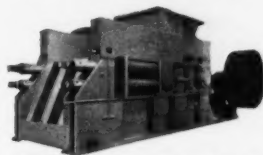
A roller bearing Jaw Crusher of superior construction, large capacity, manufactured in sizes 10 x 16" crusher. Larger sizes up to 36 x 48".



A large GRUENDLER impact hammermill with heavy plate feeder producing 200 to 250 tons per hour of stone 1" minus.



Portable gravel screening plant, all self-contained and ready to go, manufactured in several sizes, and very often used with our primary portable crushing plants.



GRUENDLER Roller Bearing Double Roll Crusher, famous for its ease of operation and uniform high production of aggregates.

The lower illustration illustrates a number of large portable plants going through our facilities, and for greater service to the industry.

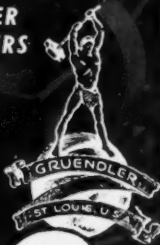
DISTRIBUTORS ATTENTION!

Territories are
available for—

SALES and SERVICE of
GRUENDLER CRUSHERS,
PULVERIZERS and EQUIP-
MENT.

Wire or Phone NEWstead 1228

CRUSHER
ENGINEERS
SINCE
1885



Greater Facilities...
Building heavy duty Crushing
Plants for all over the world...

*Crushing, Pulverizing, Material Handling
Equipment*

ESTABLISHED 1885

GRUENDLER

GRUENDLER CRUSHER & PULVERIZER CO. • ST. LOUIS 6, MO.

FLEXO-SCREENS

PROVIDE EXCELLENT IDENTIFICATION FOR YOUR EQUIPMENT

You are always sure of the finest identification with genuine FLEXO-SCREENS and so easy to apply—no experience or skill needed.



By simply placing a little of the enamel on screen and drawing applicator across it you get a perfect impression. Screen fits door curves and flat surfaces with equal perfection.

Hundreds of applications of fine, yet durable lettering in weather-proof enamel that defies the elements. WILL NOT CRACK, CHIP, PEEL or FADE. LASTS FOR YEARS.

If you are economy-minded, yet like the finest identification, you will appreciate the merits of the FLEXO-SCREEN.



Shown below are miniature reproductions of customers' designs as applied on equipment with FLEXO-SCREENS



For full details write

EQUIPMENT IDENTIFICATION CO.

515 Peoples Bank Bldg.

Indianapolis 4, Ind.

NEW EQUIPMENT • MATERIALS

Plaster-Mortar Mixers—Kwik-Mix Co., Port Washington, Wis. Two redesigned 6 cu. ft. mixers are side-discharge models, tilting and non-tilting. Both have telescopic axles. Width has been reduced to 32½". Loaded drum is tilted for discharge by power from paddle shaft drive action when ratchet lever is released. For cleaning, drum can be tilted in opposite direction. Hinged engine housing tips over to make engine accessible for service. Non-tilt model features wide discharge door operated by toggle lever. Both machines have simple clutch arrangement to disengage paddle shaft drive, adjustable saw-tooth mixing blades, V-belt drive from power unit to fully enclosed gears running in oil, single cylinder air-cooled gasoline engine of 6.4 h.p. and wide wheel base. Electric power is optional, and winch head can be added on end of paddle shaft for power take-off from mixer engine. New 3-P tilting plaster-mortar mixer of 3 to 4 cu. ft. capacity features portability, low-charging height, wide base tires, end-to-end mixing action and simple de-clutching system for fast engine starting. Mixer is equipped with telescopic tow pole. Its width is 29", shoveling height, 37". It is fitted with 4 non-clogging saw-tooth blades. Mixing drum can be tilted in either direction. Power is transmitted by multiple V-belts from 3 h.p. air-cooled engine.



Kwik-Mix 6' plaster-mortar mixer

Filler Strips for Corrugated Sheet-ping—Asphalt Corporation of America, Danville, Ill. "Perm-Seal" is corrugated filler strip moulded in rubber, soft rubber or asphalt-asbestos to match corrugated sheets of steel, asbestos, coated steel, aluminum, glass and translucent plastic. Manufacturer offers leaflet describing product and giving specifications of filler strips available.

375-ft. Plate Girder Span

**ANOTHER RECORD -HOLDER* BUILT BY
AMERICAN BRIDGE!**

**Fabricated and erected by American Bridge, the new Hackensack River Bridge on the recently opened N. J. Turnpike is co-holder of the record for the country's longest plate girder main spans.*

THE completion of the Hackensack River Bridge near Laurel Hill, New Jersey, by American Bridge, and the Passaic River Bridge by another contractor, permitted the opening of the final nine-mile section of the 118-mile New Jersey Turnpike. These two bridges with main spans of 375 ft. set a new U.S. record for lengths of plate girders.

The Hackensack River Bridge has a total length of 5613'3" c. to c. of end bearings on abutments and provides six 12 ft. traffic lanes, a 6 ft. center mall and two 3 ft. safety walks. The 375 ft. main span with two flanking spans of 275 ft. each, c. to c. of bearings, are composed of two continuous girders spaced 56' apart with a maximum depth of 21'6½" b. to b. of flange angles over the piers.

The south approach contains a 5000 ft. radius curve and the north approach a 4000 ft. radius curve. The spans on curves are super-elevated and both approaches are on a 3% grade with a 940 ft. length vertical curve symmetrical about the center of the river span. Silicon steel was used for all main girder material.

The New Jersey Turnpike now provides another link in the envisioned north-south expressway and extends from the Delaware Memorial Bridge below Wilmington, Delaware, to connections with the main crossings of the Hudson River to New York—the Holland and Lincoln Tunnels and the George Washington Bridge.

The over fifty years of bridge building experience, the technically trained personnel, the most modern equipment of American Bridge, were needed to build a bridge of this magnitude, again living up to its old motto, "If the engineers can design it, American Bridge can build it."

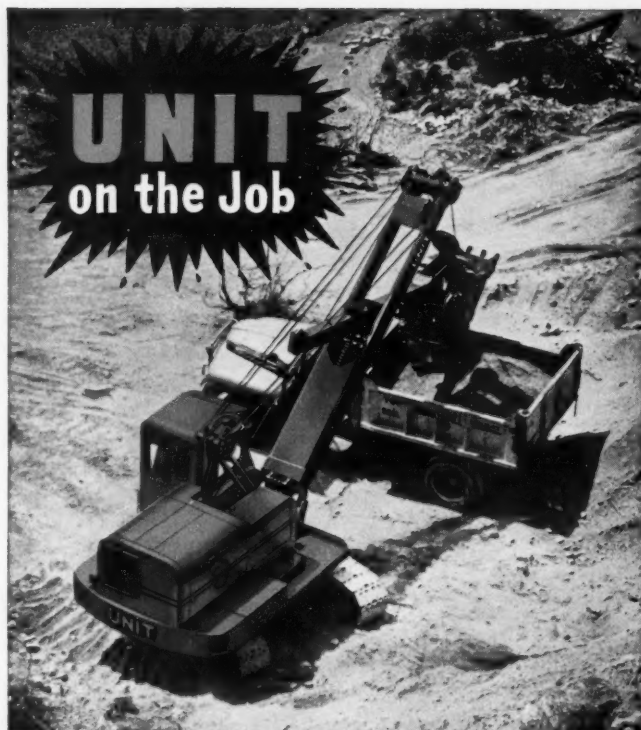
**AMERICAN BRIDGE DIVISION, UNITED STATES STEEL COMPANY
GENERAL OFFICES: 325 WILLIAM PENN PLACE, PITTSBURGH, PA.**

Contracting Offices in: AMBRIDGE • ATLANTA • BALTIMORE • BIRMINGHAM • BOSTON • CHICAGO
CINCINNATI • CLEVELAND • DALLAS • DENVER • DETROIT • DULUTH • ELMIRA • GARY • MEMPHIS
MINNEAPOLIS • NEW YORK • PHILADELPHIA • PITTSBURGH • PORTLAND, ORE. • ROANOKE • ST. LOUIS
SAN FRANCISCO • TRENTON
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

AMERICAN BRIDGE

UNITED STATES STEEL





SWING SPEED makes PAY LOADS!

Here's a UNIT $\frac{1}{2}$ Yard Shovel doing a PRODUCTION DIGGING JOB in a gravel pit. UNIT owners like the ease of operation and the FULL VISION CAB for complete visibility. They also like the sturdy construction and the many mechanical features, plus the ECONOMICAL PERFORMANCE and LOW UP-KEEP which all add up to EARNING POWER. Why not investigate what UNIT can do for you — on YOUR next excavating and material handling job?

SEE FOR YOURSELF: *Let us send you our novel TV Brochure. It illustrates the complete UNIT line.*

UNIT CRANE & SHOVEL CORPORATION

6307 WEST BURNHAM STREET • MILWAUKEE 14, WISCONSIN, U. S. A.



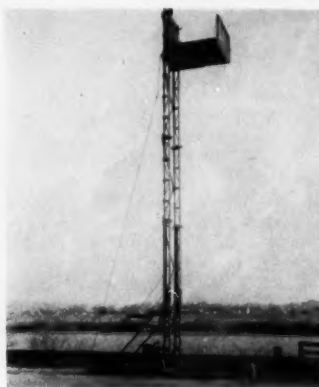
$\frac{1}{2}$ or $\frac{3}{4}$ YARD EXCAVATORS...CRANES UP TO 20 TONS CAPACITY
CRAWLER OR MOBILE MODELS . . . GASOLINE OR DIESEL



All Models Convertible to ALL Attachments!

NEW EQUIPMENT • MATERIALS

Hoisting Machine—Buck Equipment Corp., 205 Butler St., Cincinnati. Portable hoisting machine has ready-rigged self-erecting tower. Mounted on pneumatic-tired trailer with tower telescoped, it can be towed by pick-up truck. Tower is 40' and additional 5' and 10' sections are available. Load capacity on tower platform is 2,000 lbs. Platform is 5'6" x 6'6". Tower is erected by power-driven mechanism. As tower is raised, running gear retracts automatically. It returns to towing position when tower is lowered.

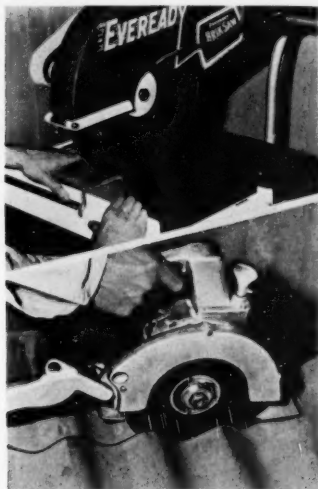


Buck hoisting machine

Heater—BICA Co., Girard, Ohio. Portable heater for temporary heating, for warming personnel and warming and drying building products, burns propane gas, has output of from 85,000 to 150,000 b.t.u.'s per hour. It operates from 40 to 63 hours on 100-lb. tank of gas. Called "Sonic-Ray," it is 31' high and weighs 31 lbs. All units are furnished complete with pressure regulators and hose for connection to propane tank.

Concrete Hose—United States Rubber Co., Rockefeller Center, New York 20. Rubber hose for transferring concrete from batch mixer to trucks lasts about 6 months. It is made in sizes ranging from 18" to 24" in diameter and from 18" to 36" in length. It is made of natural rubber reinforced with 2 plies of special fabric. In use, one end is attached to bottom of batch mixer and other end hangs free over hopper of truck.

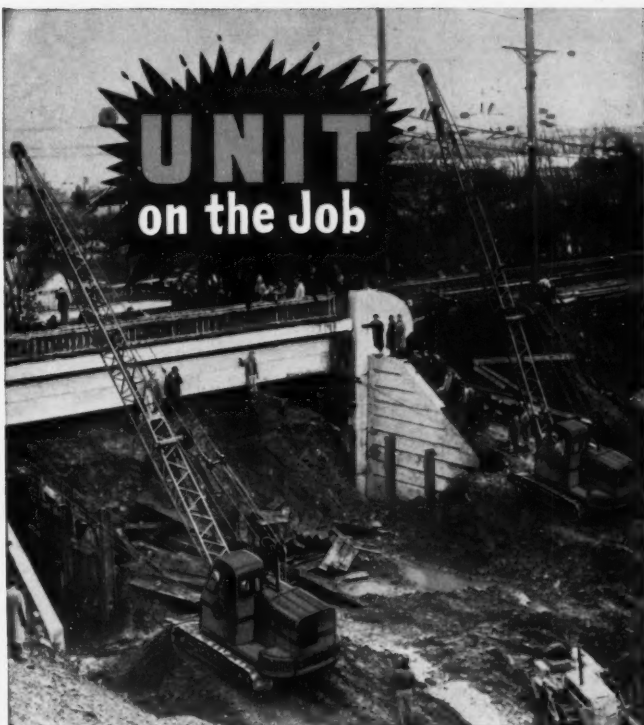
Masonry Blades—Eveready Brik-saw Co., 1509 S. Michigan Blvd., Chicago 5. "Tuffie" blades are reinforced internally with layers of strong fabric and have "safety web" molded into blade surface. They are adaptable for use on any hand-power saw. Recommended for cutting concrete block, cinder block, common brick and softer ranges of stone, blades range from 12" to 18" in diameter for masonry saws and 6" to 8" in diameter for hand-power saws.



Eveready Brik-saw's "Tuffie" abrasive blade

Loader—Mizermobile Manufacturers, 8027 N.E. Killingsworth St., Portland, Oreg. Model H all-hydraulic "Scoopmobile" is equipped with 3/4-yd. scoop, has rated lift capacity of 4,000 lbs. and 8' discharge height. It is equipped with Vickers hydraulic steering and Mixermobile planetary drive. Operator has full vision from completely enclosed cab. Attachments include swivel-type concrete hopper, lift forks and crane boom.

Blasting Unit—Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh 8. Multiple-shot blasting unit (U.S. Bureau of Mines Approval No. 1608) weighs one lb., measures 2 1/2" x 2 1/4" x 4 3/4" and is carried on belt by means of snap-on clip. It will fire up to 10 shots simultaneously. Wiring circuit is insulated from battery container to prevent acci-



TEAMWORK and Accurate Control

Working as a team, these two UNIT 1020 Cranes¹ moved a 500 TON railroad bridge from its temporary mounting to the new structure in a period of thirteen (13) minutes. This type of job calls for smooth and accurate control of boom and hoist line operation. UNIT'S extra long crawlers, multiple-hinged shoes, wide axles, and hook rollers provide perfect balance and stability. This, together with the FULL VISION CAB for complete visibility, makes UNIT the machine that is dependable and safe to handle efficiently any type of heavy-duty work.

SEE FOR YOURSELF: Let us send you our novel TV Brochure. It illustrates the complete UNIT line.

UNIT CRANE & SHOVEL CORPORATION

6307 WEST BURNHAM STREET • MILWAUKEE 14, WISCONSIN, U. S. A.



1/2 or 3/4 YARD EXCAVATORS... CRANES UP TO 20 TONS CAPACITY
CRAWLER OR MOBILE MODELS . . . GASOLINE OR DIESEL



All Models Convertible to ALL Attachments

A 7186-2/3-C

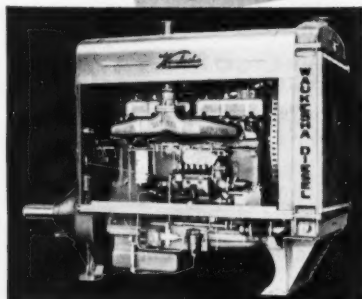
POWER

plus **PORTABILITY**



WAUKESHA

Diesel **POWER**



Model 148-DKU WAUKESHA DIESEL—Six cylinders, 5¼-in. x 6-in., 779 cu. in. displ., 180 hp. maximum.

● Quickly moved, and easily set up, to turn out a smooth uninterrupted flow of ¾-inch aggregate—100-125 cu. yds. an hour! This portable crushing, screening, loading plant is built by Highway Machinery Co., Waukesha, Wis. Its design emphasizes portability and power—Waukesha Diesel Power for capacity, dependability and low-cost operation.

This plant has a special 10½" x 36" Dual Jaw Primary Crusher, with Roll Secondary Crusher, 4' x 8' Triple Deck Screen, feeder, drum elevator, and conveyors—and all equipment is powered by the Model 148-DKU Waukesha Diesel. Yet it handles every load demand eagerly and easily with power to spare...burning its fuel cleanly, without smoking on the job. Economical, too...and easy to start. And neither flying dust nor dirt deter it in the least. Easy to understand and operate, this Waukesha Diesel is a contractor's engine. Get Bulletin 1414.

107

WAUKESHA MOTOR COMPANY • WAUKESHA, WISCONSIN
NEW YORK • TULSA • LOS ANGELES

NEW EQUIPMENT • MATERIALS

dental firing. Top of battery container and push button lead retainers are insulated. Dry cell batteries are housed in moisture-resistant case. Detailed information is contained in Bulletin 0901-1, available from manufacturer.

Lantern—Justrite Manufacturing Co., 2061 Southport Ave., Chicago. Portable, battery-powered lantern, Model 2146-S, houses red lens and sliding switch assembly controlling 2 bulbs. One position of switch produces steady red beam, and other flashing light. Safety features of lantern include "kick-out" bulb socket which eliminates danger of explosions in event of broken bulb, heavy wire guard which protects globe against breakage, spark-proof construction of all protruding parts and mounting on movable base which makes beam adjustable to any desired angle.

Truck Crane—Harnischfeger Corp., 4418 W. National Ave., Milwaukee 46. "Miti-Mite" Model 55 truck crane is designed to mount on any truck of suitable capacity. It is convertible for any front-end service—shovel, trench hoe, dragline, clamshell, crane and magnet crane. It has $\frac{3}{4}$ cu. yd. capacity as shovel and 7-ton capacity as crane. New power box design provides single box to contain all driving machinery. Full-revolving upper is welded integrally as heavy power box which forms machine frame and supports all shafts, drums, gantry, engine, counterweight and front-end attachments. Six-cylinder gasoline engine provides power, driving through heavy-duty 4-speed transmission. All machinery is fully enclosed. Anti-friction bearings are used throughout. Main drum and swing clutches are of double shoe internal expanding type with outside cam adjustments provided. Model 55 has new P&H hydraulic control.



P&H "Miti-Mite" truck crane

THE CONSTRUCTOR, JULY 1952

Leaders IN PERFORMANCE AND DEPENDABILITY

SIMPLEST PUMP
QUICKEST PRIMING
FASTEST PUMPING
NEVER QUILTS



PRIMING ACTION

LOOK INSIDE THE PUMP



Gorman-Rupp Pumps have no equal in the Self-Priming Centrifugal Field. The **Simplest Pumps** built, streamlined inside where streamlining counts -- nothing to cause stoppages, nothing to reduce capacity.

In Gorman-Rupp Pumps the self-priming feature has reached its highest achievements.

Note the priming action illustrated above. The air and water are discharged through channel "A" into the chamber, where the air escapes from the water. The heavier air-free water is pulled downward again through channel "B" to the impeller where more air is entrained, discharged upward and released until the priming cycle is completed.

Gorman-Rupp pumps will pump more dirty water, more hours, with less fuel than any other self-priming pump. Being practically trouble-free they require a minimum of maintenance.

Contractors' Pump Bulletin 8-CP-11
furnished on request.

Contractors' Pump
Bulletin 8-CP-11
furnished
on request.

THE  **GORMAN-RUPP COMPANY**
MANSFIELD, OHIO

STANDARD FORMS

COVERING IMPORTANT CONTRACTING PROCEDURE



Prepared by The Associated General Contractors of America and Cooperating Bodies

Order No.	MANUALS	Per Copy	Per Dozen	Per 100
1.	A.G.C. Manual (Contains documents listed below: Nos. 3-30, inclusive, and Nos. 34, 35, 36, 36a, 37, 38)	\$5.00	\$50.00	
2.	Accident Prevention Manual (Revised and enlarged 1949)	3.00	30.00	\$210.00

CONTRACTS

3.	Standard Contract for Engineering Construction issued by the Joint Conference on Standard Construction Contracts	.25	2.75	20.00
4.	Standard Building Contract of the American Institute of Architects—Revised 6th Edition	.50		47.50
5.	Subcontract form—American Institute of Architects—Revised 5th Edition	.10		9.50
7.	Standard Government Contract	.10	.50	4.00
8.	A.G.C. Cost Plus a Fee Contract	.10	.50	2.50
9.	A.I.A. Cost Plus a Fee Agreement between Contractor and Owner—Revised 6th Edition	.10		
11.	Equipment Rental Agreement	.10	.50	3.00
12.	A.G.C. Proposal Form	.10	.50	3.00

ESTIMATING AND ACCOUNTING

13.	A.I.A. Accounting Form #701 "Change Order"	.20	1.80	12.00
14.	A.I.A. Accounting Form #702 "Request for Partial Payment"	.20	1.80	12.00
15.	A.I.A. Accounting Form #703 "Certificate for Payment"	.20	1.80	12.00
16.	Building Estimate Summary	.10	.50	3.00
17.	Job Overhead Summary	.10	.50	3.00
20.	Contractors' Equipment Ownership Expense (Itemized tables of ownership expense elements with instructions for application. Revised 1949)	1.00	10.00	65.00
21.	Equipment Record—Bond paper	.10	.50	3.00
22.	Equipment Record—Cardboard	.10	.50	3.50

INVESTIGATION OF BIDDERS

24.	Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover Engineering Construction (For Qualifying Before Bidding)	.20	1.80	12.00
25.	Standard Pre-Qualification Questionnaires			

Order No.	INVESTIGATION OF BIDDERS (Continued)	Per Copy	Per Dozen	Per 100
	and Financial Statements for Prospective Bidders—Complete in Cover. Building Construction (For Qualifying Before Bidding)	.20	1.80	12.00
26.	Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Engineering Construction (For Qualifying After Bidding)	.20	1.80	12.00
27.	Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Building Construction (For Qualifying After Bidding)	.20	1.80	12.00
28.	Financial Statement and Questionnaire for Credit Transactions	.20	1.80	12.00

MISCELLANEOUS

29.	Insurance Check List	.10	1.00	5.00
30.	The Functions of a General Contractor	.10	.75	6.00
34.	A.G.C. Governing Provisions	.10	.50	3.00
35.	A.G.C. Code of Ethical Conduct	.10	.50	3.00
36.	Concrete Mixer Standards			
36a.	Contractors' Pump Standards			
37.	A.I.A. Standard Form of Arbitration Procedure			
38.	Suggested Guide to Bidding Procedure			

Single copies — no charge; quantity prices on application.



FOR A.G.C. MEMBERS ONLY

A.G.C. EMBLEM

List of Styles and Prices on request.

SIGNS AND SEALS

39.	A.G.C. Cardboard Seal (red and black) 24" dia.	.50
40.	A.G.C. Metal Seal (red and black) 10" dia.	.40
41.	A.G.C. Decalcomania Seal (red and black) a. 10" dia.	.20
	b. 5" dia.	.10
	Metal Seals and Decals: 20% discount for orders of more than 50; 40% discount for orders of 200 or more.	

43. A.G.C. SOCIAL SECURITY FORMS

Form SS1: Application for Employment; Form SS2: Employees' History Record; Form SS3: Employees' Employment and Earnings; Form SS4: Payroll. List of prices and styles will be furnished to A.G.C. members on request.

USE THE CONVENIENT COUPON TO PLACE YOUR ORDER

Order No.	Amount	Cost							
1.			12.			26.			39.
2.			13.			27.			40.
3.			14.			28.			41a.
4.			15.			29.			41b.
5.			16.			30.			43. Price List and Samples <input type="checkbox"/>
6.			17.			34.			Price List and Styles of Emblem <input type="checkbox"/>
7.			20.			35.			
8.			21.			36.			
9.			22.			36a.			
10.			24.			37.			TOTAL COST
11.			25.			38.			

Make Checks payable to CONSTRUCTION FOUNDATION, A.G.C., Munsey Building, Washington 4, D. C.

Gentlemen: Enclosed find check for \$_____ for which please send materials as ordered by number herewith.

Name _____ Address _____

City _____ Zone _____ State _____

July 1952

NEW EQUIPMENT • MATERIALS

Asphalt Heating Equipment

—Cleaver-Brooks Co., 326 E. Keefe Ave., Milwaukee 12. High temperature oil booster is self-contained fully automatic heating unit operating on principle of closed heating system, vented to atmosphere. Unit is always at atmospheric pressure. Pressure developed by circulating pumps is considered sufficient for most installations. Unit is fired by pressure atomizing type oil burner suitable for oil having viscosity not exceeding 50 seconds Saybolt Universal. Mounted integrally on unit are pump, valves, piping, temperature and low-level oil controls and electric motor and controls. It is mounted on heavy channel iron base.

Magnesium Cement Flooring

Flash-Stone Co., 3723 Pulaski Ave., Philadelphia 40. Combination of magnesium chloride and magnesium oxide with certain fillers and fine aggregates forms hard, dense flooring material called "Magna-Crete." It is supplied in dry form to be mixed on job to mortar consistency, then spread, leveled and finished by troweling.

Power Steer Booster—Air-O-Matic

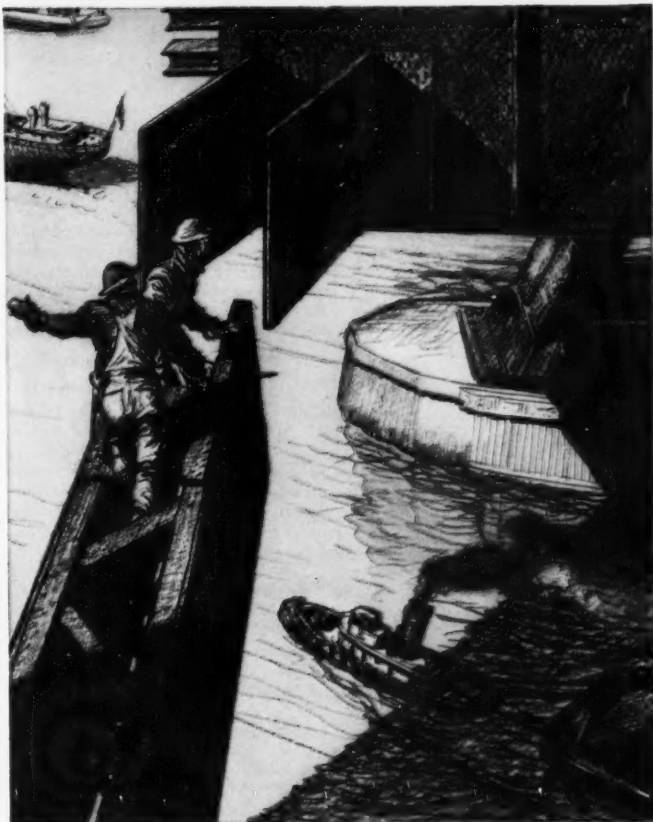
Power Steer Corp., 24 Noble Court, N.W., Cleveland 13. Booster to aid vehicle steering can be adjusted to give desired amount of steering assist. It is powered by compressed air. One end is fastened to stationary member of vehicle, and other to movable part of steering linkage.

New Handbook for Engineers

A reference book for civil engineers has been published recently by Butterworth Scientific Publishers of London.

Entitled *Civil Engineering Reference Book*, the 1,700-page volume contains 48 chapters and should give the engineer quick information on the many problems that confront him. Each chapter is written by a recognized authority in his field, who tries to present, besides fundamental theories and principles, new and different methods to solve old problems. The book should be of particular interest to contractors doing work in European or Mediterranean areas, since most of the contributing authors are European.

American sales of the book, priced at \$22, are being handled by Butterworth & Co. (Canada) Ltd., 1367 Danforth Avenue, Toronto 6, Ontario.



On the job...and on the bond EXPERIENCE COUNTS

Erecting a magnificent arc of steel and concrete over broad reaches of rushing water demands the ultimate in skill and ingenuity. Yet American engineers and construction men have what it takes to do the job.

What it takes is cumulative *experience*—without which little could be accomplished in *any* field.

It is experience, too, which enables the Aetna Casualty and Surety Company to give you prompt contract bond service when filing deadlines are close—to handle bonds on jobs of any size or type—to fulfill your bonding needs, speedily and intelligently, whether your job is nearby or hundreds of miles away. When you need a contract bond, the Aetna representative in your community is the man to see.

"No Job
too Big—

No Job
too Small"



AETNA CASUALTY AND SURETY COMPANY

The Aetna Life Affiliated Companies write practically every form of insurance and bonding protection

LIFE AND CASUALTY

Aetna Life Insurance Company

Aetna Casualty and Surety Company

FIRE AND MARINE

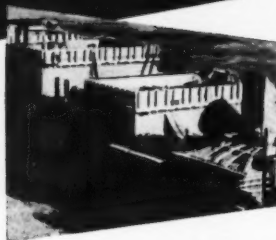
Automobile Insurance Company

Standard Fire Insurance Company

Hartford 15, Connecticut

BONDS— for Contractors

FAST, COUNTRY-WIDE SERVICE



- BONDS—Bid and Performance
- Equipment Floaters
- Complete Casualty Insurance Requirements

American Surety Company

100 Broadway • New York 5, N. Y.
Agents and Brokers Everywhere

Lubrication Guide—Gulf Oil Corp., 719 Gulf Bldg., Pittsburgh 30. Revised 4th edition of Gulf's lubrication guide for contractors' equipment contains 96 pages of information on lubrication and maintenance of equipment for quarries, crushed stone plants, sand and gravel plants, asphalt plants and ready-mixed concrete suppliers, in addition to contractors' equipment. Guide is not intended as substitute for operator's manual which comes with each new machine, but has object of giving operator better basic understanding of lubrication and maintenance requirements of construction and allied equipment. It deals with such items as engine types, engine lu-

NEW LITERATURE

brication, air cleaners, oil filters, care of carburetors and ignition systems, anti-freeze requirements, correct valve maintenance, diesel fuel injection equipment, chassis lubrication, steering gears, power brakes and hydraulic systems. It also contains information on storage of equipment, and removal of equipment from storage, care of tires, dust control, storage battery maintenance and storage and handling of petroleum products.

Door-Frame-Hardware Units—Detroit Steel Products Co., 3143 Griffin St., Detroit 11. Catalog, *Fenestra Hollow Metal Doors, Swing and Slide*, presents types and sizes of door-frame-hardware units in Fenestra line. Installation instructions, descriptions, uses and complete specifications are given.

Excavators—Bucyrus-Erie Co., South Milwaukee, Wis. Booklet, *Ways To Make Your Excavator Work Harder—Live Longer*, presents rules of excavator and crane operation and maintenance, along with tips on operation, lubrication, adjustments and preventive maintenance.

Graders—Caterpillar Tractor Co., Peoria 8, Ill. Illustrated maintenance guide (Form 30248) for No. 12, No. 112 and No. 212 Caterpillar motor graders details adjustments that may be made, cautions to be taken in servicing and tips on such points as tire care.

Scrapers—Caterpillar offers new booklet (Form 30375) on its complete scraper line. Specifications are given for 9 sizes of scrapers offered, from No. 40 for use with D4 track-type tractor, to No. 90 with heaped capacity of 27 cu. yds. for use with D8. Illustrations include photos of actual

working conditions and drawings showing particular features of scrapers.

Preventive Maintenance—Caterpillar booklet, *Prevent Down Time*, shows facilities offered by Caterpillar dealers for maintenance of equipment.

Aluminum Windows—Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50. Newly acquired Ceco-Sterling Series 50-B aluminum double-hung windows for residences are presented in booklet. Five groups of standard window stylings, made by changing or eliminating muntin arrangements, are described. Three sets of dimensions are shown on one pictorial chart: inside rough opening dimensions, outside opening dimensions and window dimensions. Single and double glazing glass area measurements are listed.

Winches—Gar Wood Industries, Inc., Wayne, Mich. Bulletin 149T describes capacities and applications of Models 2U and 3U "Low-Mount" winches. Installation of winch in back of cab and at rear or front of chassis is explained.

Concrete Forming—Universal Form Clamp Co., 1238 N. Kostner Ave., Chicago 51. Circular SA-75 describes "Uni-Form" panel system of building sewage treatment plants and Circular SA-70 covers general line of products, including "Spiroloc" form ties, "Twistyc" form ties, anchors and accessories for reinforced concrete construction.

Trencher—Parsons Co., Newton, Iowa. Bulletin explains features of Model 202 "Trenchliner," wheel-type digging unit. Large pictures and captions describe operation. Action photos show "Trenchliner" excavating for pipelines, drainage and irrigation, highway widening, utility trenching.

Compaction Equipment—Wm. Bros Boiler and Mfg. Co., Minneapolis 14. In first section of booklet on pneumatic-tired compaction equipment, condensed background of developments in construction of highways, airfields and dams is given. In second section, results of compaction tests at Oahe Dam project are presented, with performance of Bros 35- and 50-ton "Roll-O-Pactors" shown. De-

25 YEARS EXPERIENCE

for SATISFACTION

Foundation

WELLPOINT SYSTEMS

RENTAL • SALES

SEND FOR LITERATURE

Foundation Equipment

CORPORATION

Long Island City 1, N. Y. Chicago, Illinois
37-37 10th St. 2608 W. 111th St.
EXeter 2-1100 Hilltop 5-1545

NEW LITERATURE

tails and specifications on "Roll-O-Pactor" are given in third section.

Concrete Floors—Flash-Stone Co., 3723 Pulaski Ave., Philadelphia 40. "Dynapakt" concrete floors are presented in new bulletin. High-density, hard-topping of floors is explained and step-by-step comparison of "Dynapakt" low-water ratio methods is included.

Generators—Kato Engineering Co., Mankato, Minn. Bulletin illustrates and describes AC generators, motor-generators, converters DC to AC and power plants, AC-DC. Specifications are given.

Pipe Protection—Minnesota Mining and Manufacturing Co., 900 Fauquier St., St. Paul 6. Protecting buried pipes from corrosion with "Scotch" plastic tapes No. 21 and 22 is subject of new booklet, which describes and illustrates high-speed machine and hand-wrapping techniques for protecting natural gas and water mains, joints and leads from corrosive effects of soil chemicals, oils and fats, stray ground currents and soil bacteria and fungi.

Concrete Curing Papers—Angier Corp., Framingham, Mass. Reinforced waterproof papers are described in folder which includes suggestions for re-use of papers for other construction needs.

Heating, Cooling Machine—Fa-geol Heat Machine Co., 5725 Mt. Elliott Ave., Detroit 11. Bulletin L-5391 describes how Model PW-189 heat machine can be converted to cool air circulator which provides air conditioning in summer.

Hoists—Perfection Steel Body Co., Galion, Ohio. Bulletin presents Models 720, 725, 820 and 825 hydraulic hoists for use with Perfection series 100 and 200 bodies.

Catalog of Belgian Machines

A catalog of driving engines, pneumatic and hydraulic machines produced by Belgian manufacturers who are members of "Fabrimetal" a federation of industrialists, is available from the Belgian Embassy, 1780 Massachusetts Ave., Washington 6, D.C.

There IS a Difference in VIBRATORS

CONTRACTOR'S SELECTION OF VIBER VIBRATORS EXCLUSIVELY ON SOME OF THE LARGEST JOBS IN THE COUNTRY PROVE THIS STATEMENT



We have found over the past thirty years that cost conscious contractors are switching exclusively to Viber Vibrators on every type of concrete construction.

Knowing why may save you construction time and expense

MAINTENANCE AND DOWN TIME AMAZINGLY LOW WITH VIBER VIBRATOR

Viber Vibrators offer top performance day after day on the toughest jobs. Ability to absorb punishment comes from the built-in quality that comes only with research, experience, and manufacturing ability.

COMPLETE VIBER "PACKAGE" MEANS YOU CAN HANDLE ANY CONCRETE PLACEMENT JOB

Viber Company has progressively increased their line to provide all the equipment you need for smooth, low-cost operation. Interchangeability is an important feature of the Viber line.

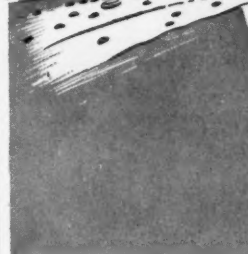
REPEAT CUSTOMERS

In checking over our ever increasing customer list, we find that these contractors buy Viber Vibrators steadily year after year. This repeat business is indicative of the high regard contractors hold for the Viber line.

For details, see your Viber distributor or send for illustrated catalog.

VIBER COMPANY

Concrete Vibrators Since 1931
726 SOUTH FLOWER STREET
BURBANK, CALIFORNIA
Dept. 62



CHAIN BELT Co. is occupying its new administration building at 4701 W. Greenfield Ave., Milwaukee. For the past 50 years, executive headquarters were at 1600 W. Bruce St. The new building is directly adjacent to the Milwaukee manufacturing facilities.

OLIN INDUSTRIES, INC., has acquired RAMSET FASTENERS, INC., manufacturer of powder-actuated industrial tools. Ramset will continue its business under its present management and will operate as part of the Arms and Ammunition Division of Olin.

Harold H. Hall, formerly general service manager of CUMMINS ENGINE Co., is now general manager of Cummins Diesel Export Corp. Charles C. Sons, formerly eastern service manager, has been named acting general service manager, succeeding Mr. Hall.

J. A. Hill has been named manager of industrial sales of INDEPENDENT PNEUMATIC TOOL Co. J. F. Corkery succeeds him as manager of electric

tool sales and G. A. Thoma succeeds Mr. Corkery as sales promotion manager.

William L. Wearly has been elected general sales vice president of JOY MANUFACTURING Co.

A. E. Dorn has been named industrial sales manager, Tractor Division, ALLIS-CHALMERS MANUFACTURING Co. He succeeds R. M. Stone who has resigned to become associated with Allis-Chalmers industrial dealership in St. Louis.

F. P. Diener, chemical engineer of UNIVERSAL ATLAS CEMENT Co., has been appointed director of tests and research. He succeeds George Lee Lindsay, who died April 24.

H. H. Hippler has been named assistant director, sales and advertising, of GAR WOOD INDUSTRIES, INC.

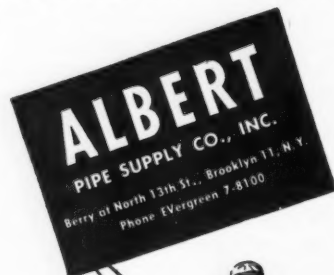
John S. Marsh, research engineer of BETHLEHEM STEEL Co., was awarded

the American Iron and Steel Institute Medal at the general meeting of the institute in New York May 21. The award is given annually for a paper of special merit in connection with the activities of the iron and steel industry. Mr. Marsh's paper, "The Significance of Air Temperature in Open Hearth Operation," was read before the Institute one year ago. Also at the institute meeting, L. F. Reinartz, vice president, ARMCO STEEL CORP., was awarded the Regional Technical Meeting Award, in recognition of a paper presented last fall in Chicago on a new method of delivering scrap to the open hearth furnace charging floor by means of elevators instead of elevated railroad track.

William H. Franklin, controller of CATERPILLAR TRACTOR Co., has been elected a vice president. He assumed the additional duties of secretary on July 1, replacing E. Bornstein who has retired after 30 years' service. A. N. Whitlock, assistant controller, is new controller. . . . Gale E. Allen has

SAVINGS FLOW FROM **SPEED-LAY** PIPE SYSTEM

EVERYTHING for a COMPLETE PORTABLE PIPE SYSTEM



**DELIVERED
READY FOR INSTALLATION**

**FACTORY PACKAGED
PIPE — COUPLINGS
FITTINGS — VALVES
ACCESSORIES
LIGHTWEIGHT, SAVES LABOR
FAST, SIMPLE**

Immediate Installation
by one unskilled man. 2 1/2 to 12 1/2 o.d. black or galvanized. Larger sizes can be furnished. Ready to lay—without delay.

SEND COUPON NOW!

ALBERT PIPE SUPPLY CO., INC.
Berry & N. 13th St., Brooklyn 11, N. Y.
Please send free booklet describing your Speed-Lay Pipe System and services:

NAME.....
FIRM NAME.....
ADDRESS.....
CITY.....STATE.....

dewater the Complete way

Wherever there's ground water only "Complete" gives COMPLETE assurance of COMPLETE elimination of the hazard. These patented fluted tube wellpoints remove more water faster . . . more easily, more efficiently, most economically!

Write today for "Complete" catalog Dept. CO

**COMPLETE MACHINERY &
EQUIPMENT COMPANY, INC.**

36-40 11th STREET
LONG ISLAND CITY,
N. Y.



MANUFACTURERS' NOTES

been appointed supervisor of Trackson products promotion, and Harold C. Fleming, Jr., has been appointed supervisor of Trackson advertising.

JOSEPH DIXON CRUCIBLE CO. this year is celebrating its 125th anniversary. The company was started by Joseph Dixon in Salem, Mass., in 1827.

George C. Wilder has been elected president of MACWHYTE Co., succeeding Jessel S. Whyte who died May 28.

On June 7 HARNISCHFEGER CORP. opened its new diesel engine division in Crystal Lake, Ill., bringing to nine the number of P&H plants now in operation.

John E. Carroll, vice president of sales of AMERICAN HOIST & DERRICK Co., has been elected to the board of directors.

UNIT CRANE & SHOVEL CORP. held a servicemen's factory training school in April. Agenda included discussion

Russian Tractors Evaluated

Two Russian track-type tractors, captured in Korea, have been found to bear a close resemblance to the U.S. Army's D-7 tractors built by the Caterpillar Tractor Co. Caterpillar carried out an evaluation and investigation contract on the tractors under direction of the Engineer Research and Development Laboratories, Fort Belvoir, Va.

The studies show that Russian engineers have copied the fuel injection system, air cleaner and starting engine from the D-7 model. The Russian machines will be studied to determine the possibility of restoring captured equipment to working order in the field by replacing worn and damaged Russian parts with American parts, the Army says.

J. M. Davies, Caterpillar research director, said the machines were copies of Caterpillar's D7. They were redesigned to fit metric dimensions—no mean engineering feat, he points out. Appearance was unimportant; parts are rough on outside, but careful attention was given where part finish and close tolerance are needed. Mr. Davies said, "In our opinion, they are a well-engineered, well-manufactured copy, reflecting Russian practices, Russian machine tools and the raw materials available to the Russians."

*For the Pump to handle the Roughest, Toughest Jobs with ease depend on **CARVER** DIAPHRAGM PUMPS*

- ★ 4" Suction and Discharge
- ★ Capacities up to 6,000 G.P.H.
- ★ Timken Roller Bearings
- ★ Non-Clogging Valves
- ★ Long-Life Diaphragm
- ★ Enclosed Transmission
- ★ Gasoline Engine or Electric Motor Drive

Designed from suction to discharge for rugged dependable pumping they're loaded with reserve power and stamina to handle sludge, mud, seepage, grit, sewage and septic tanks with the greatest of ease.

Nothing fragile about these pumps, no underpowering, no compromise on quality. Throughout their many years Carver Pumps have earned an enviable reputation on the toughest construction jobs.

*Specify **CARVER** for the Complete QUALITY LINE*

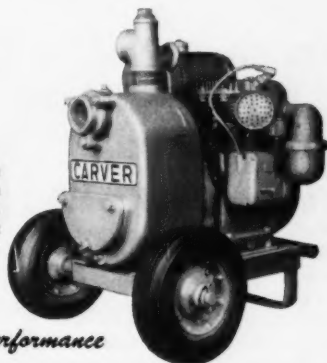
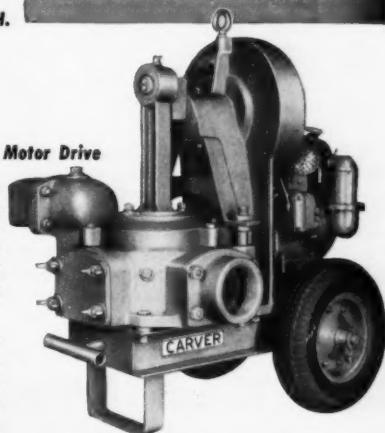
CARVER manufactures a complete line of the highest quality self-priming pumps in all sizes from 4,000 to 240,000 G.P.H. gasoline engine, diesel, motor or belt drive. See your CARVER Distributor or write for Bulletin No. 110.

CARVER CONTRACTOR PUMPS

... the best buy for better performance

CARVER PUMP CO. 1403 Hershey Ave., Muscatine, Iowa

CARVER PUMPS



of new machine installation, field repair, operating and maintenance instructions. Distributor servicemen were given the opportunity to study service techniques and get first-hand answers to their questions.

R. A. Hummel has been elected chairman of the board of LONE STAR CEMENT CORP. H. A. Sawyer succeeds him as president. Th. Avnsoe has been elected vice chairman of the board. R. J. Mahon has been made vice president—sales, C. C. VanZandt, vice president—engineering, J. H. Mathis, vice president and secretary and J. W. Mather vice president—industrial relations.

WACO-MAY SCAFFOLDING CO., with headquarters in Glendale, Calif., has been organized to manufacture and distribute "Waco" brand sectional steel scaffolding on the West Coast. It has been granted exclusive licensee rights by the WILSON-ALBRECHT CO., holder of the original manufacturing patents.

W. L. Little has been elected president and chief executive officer in all operating matters of BUCYRUS-ERIE Co. W. W. Coleman is chairman of the board and N. R. Knox vice chairman. Vice presidents are: P. H. Birkhead, R. W. Newberry, C. K. Charlton, P. S. Stevens and M. T. Smith. Secretary is L. S. Cline and treasurer is F. C. Weiblen. J. G. Miller, formerly secretary and treasurer, who has been with the company for 44 years, is voluntarily retiring.

John P. Courtright has been elected president and general manager of MARION POWER SHOVEL CO. He succeeds Harvey T. Gracely, who has been obliged by health to assume an inactive status with the company. J. Malcolm Strelitz, attorney and industrialist of Marion, Ohio, has been elected chairman of the board.

KOEHRING CO. has organized a subsidiary, known as Koehring Southern Co., with headquarters in Chattanooga, Tenn. The move has been made to

provide increased facilities for development and manufacture of new models of Koehring power shovels and cranes.

Stewart Armington has been elected chairman of the board of EUCLID ROAD MACHINERY CO., succeeding his father, G. A. Armington, who was elected honorary chairman after serving as board chairman since the company was incorporated in 1931. G. E. Armington succeeds Stewart Armington as vice president, engineering and Hugh T. Monson becomes vice president, manufacturing.

Obituary

V. M. Dobeus, president and general manager of the Tractomotive Corp., died April 8 at the age of 50. He formed the company with Paul B. Cochran in 1945.

George C. McClure, 46, executive vice president and general manager of Hercules Steel Products Corp., died April 26.

Lighter Weight SAWING POWER Does More Work Faster . . .

Mall

Electric CHAIN SAW

Work faster wherever you need compact, lighter-weight sawing power. Model 11E18 Electric Chain Saw weighs only 19 lbs. . . one hand guides it easily. Handles lumber and trees up to 18" thick in one cut, up to 36" in two cuts . . . hard, soft, wet or frozen wood. AC-DC 115-volt, 11 amp.; 230 volt, 5.5 amp. motor.

More power to the pound
... less pounds to handle.

Mall
TOOL COMPANY

7703 S. Chicago Avenue
Chicago 19, Illinois



Use This
Chain Saw
Anywhere

Model 12A "one man" gasoline-powered Chain Saw. Full 360° indexing swivel. Cutting capacities: 18 to 42 inches.



MALL
Vibrators

Save money on better finished concrete. Pneumatic, electric, or gasoline engine models.

40 Factory-Owned Service Warehouses, Coast to Coast,
To Serve Our Customers and Thousands of Dealers.

Clip and mail this CHECK LIST for details



PLYWOOD FOR CONCRETE FORMS

PLYFORM

CONCRETE FORM EXTERIOR
PLASTIC FACED PLYWOOD

GPX



PLASTIC FACED PLYWOOD

EXT-DFPA-CONCRETE FORM-B-8



From Stock & Direct Mill Shipments

The CARL BESCH COMPANY, Inc., Dept. C

Grand Central Terminal

NEW YORK 17, N. Y.

Telephone: ORegan 9-2777

Manufacturers' addresses are listed on page 216

Aggregate (Light-weight)

Great Lakes Carbon Corp.,
Building Products Division

Air Entraining Agents

A. C. Horn Co.

Asphalt Plants (Portable)

Barber-Greene Co.
Iowa Mfg. Co.
Standard Steel Corp.
Standard Steel Works
White Mfg. Co.

Asphalt Tile

Coleman Floor Co.

Axles (Truck)

Eaton Mfg. Co., Axle Division

Backfillers

Bucyrus-Erie Co.
Cleveland Trencher Co.
Gradall Division
Harnischfeger Corp.
Parsons Co.
Unit Crane and Shovel Corp.

Batchers

Blaw-Knox Division
Butler Bin Co.
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
C. S. Johnson Co.
Standard Steel Corp.

Bearings (Anti-Friction, Tapered Roller)

Hyatt Bearings Division
Timken Roller Bearing Co.

Bins

Blaw-Knox Division
L. Burmeister
Butler Bin Co.
Gründler Crusher & Pulverizer Co.
Heltzel Steel Form & Iron Co.
Iowa Mfg. Co.
C. S. Johnson Co.
Universal Engineering Corp.
Worthington Corp.

Bits (Detachable Drill)

Ingersoll-Rand Co.
Joy Manufacturing Co.
Termite Drills, Inc.
Timken Roller Bearing Co.

Blades (Grader, Maintainer, Snow Plow, Bulldozer, Scarifier)

Paper-Calmenson & Co.
Shunk Manufacturing Co.

Blasting Accessories

American Cyanamid Co.
Atlas Powder Co.

Bridges

American Bridge Co.
Armco Drainage & Metal Products
Fort Pitt Bridge Works

Buckets (Clamshell & Dragline)

Blaw-Knox Division
Bucyrus-Erie Co.
Harnischfeger Corp.
C. S. Johnson Co.
Owen Bucket Co.
Wellman Engineering Co.

Buckets (Concrete)

Blaw-Knox Division
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
Owen Bucket Co.
Worthington Corp.

Building Papers

Siskraft Co.

Buildings (Steel)

Allied Structural Steel Cos.
American Bridge Co.
Armco Drainage & Metal Products
International Steel Co.
Macomber, Inc.
Truscon Steel Co.

Bulldozers

Baker Manufacturing Co.
Bucyrus-Erie Co.
Gar Wood Industries
LaPlant-Choate Mfg. Co.
R. G. LeTourneau, Inc.

Car Pullers

Clyde Iron Works

Carpet

Coleman Floor Co.

Cement (Common and Special)

Lehigh Portland Cement Co.
Lone Star Cement Corp.
Marquette Cement Mfg. Co.
Universal Atlas Cement Co.

Cement (White)

Trinity White, General Portland Cement Co.
Universal Atlas Cement Co.

Clamps (Hose)

Dixon Valve & Coupling Co.

Compressors

Allis-Chalmers Co.
Gründler Crusher & Pulverizer Co.
Ingersoll-Rand Co.
Joy Manufacturing Co.
LeROI Co.
Worthington Corp.

Concrete Curing Material

A. C. Horn Co.
Siskraft Co.

Concrete Mixers, Pavers, Tampers

Chain Belt Co.
Construction Machinery Co.
Foote Co.
Jaeger Machine Co.
Knickerbocker Co.

Concrete Mixers, Pavers, Tampers
Cont. to P. 212

WACO MASON'S SCAFFOLDING EQUIPMENT ON YOUR JOB PUTS HARD DOLLARS IN YOUR POCKET

- 1.** Waco Mason's Jacks eliminate ground leveling—are speedily set-up, compact and one-man handled.
- 2.** Waco Sectional Scaffolding has Speedlock assembly, fewer loose parts, built-in ladders and floating coupling pins, and pivoted cross-braces. Your local Waco distributor will furnish the sizes and models suited to your needs.
- 3.** Waco Portable Elevators (cap. 1000 Lbs.) are versatile, safe, remote controlled and two-man erected, furnished with gas or electric power units.
- 4.** Waco Material Hoisting Towers (cap. 1000 Lbs.) assemble with standard Waco Sectional Scaffolding, are remote controlled, easily erected and gas or electric powered.

WACO

WILSON-ALBRECHT CO., INC.

3565 WOODDALE AVE. MINNEAPOLIS 16, MINN.
SALES AND RENTAL INVENTORIES IN PRINCIPAL U.S. CITIES

Concrete Mixers, Pavers, Tampers

Contd. from P. 211

 Koehring Co.
 Kwik-Mix Co.
 T. L. Smith Co.
 Worthington Corp.

Concrete Vibrators

 Concrete Surfacing Machinery Co.
 Electric Tamper & Equipment Co.
 Independent Pneumatic Tool Co.

 Ingersoll-Rand Co.
 Mall Tool Co.
 Master Vibrator Co.
 Viber Vibrators
 Vibro-Plus Products, Inc.
 White Mfg. Co.

Conveying Machinery

 Barber-Greene Co.
 Chain Belt Co.
 G. N. Crawford Equipment Co.
 Iowa Mfg. Co.
 Joy Manufacturing Co.
 Link-Belt Co.
 Universal Engineering Corp.

Cranes

 Austin-Western Co.
 Baldwin-Lima-Hamilton Corp.
 Bay City Shovels, Inc.
 Bucyrus-Erie Co.
 Cleveland Trencher Co.

Clyde Iron Works

 Gar Wood Industries
 Harnischfeger Corp.
 Koehring Co.
 R. G. LeTourneau, Inc.
 Link-Belt Speeder Corp.
 Manitowoc Engineering Works
 Marion Power Shovel Co.
 Michigan Power Shovel Co.
 Northwest Engineering Co.
 Osgood Co.
 Thew Shovel Co.
 Unit Crane and Shovel Corp.
 Worthington Corp.

Crushing Machinery

 Allis-Chalmers Co.
 Austin-Western Co.
 Gruendler Crusher & Pulverizer Co.
 Iowa Mfg. Co.
 Universal Engineering Corp.

Culverts

 Albert Pipe Supply Co.
 Armo Drainage & Metal Products
 Johns-Manville Corp.

Cutters (Abrasive)

Wodack Electric Tool Corp.

Decking (Roof Steel & Aluminum)

Macomber, Inc.

Derricks

Clyde Iron Works

Doors (Metal, Wood)

 Ceco Steel Products Corp.
 International Steel Co.
 Kinnear Mfg. Co.
 R. C. Mahon Co.
 Truscon Steel Co.

Dredging Machinery

 Baldwin-Lima-Hamilton Corp.
 Bucyrus-Erie Co.
 Harnischfeger Corp.
 Marion Power Shovel Co.
 Northwest Engineering Co.
 Osgood Co.
 Thomas Hoist Co.

Drills & Drilling Machinery

 Bucyrus-Erie Co.
 Buda Co.
 Independent Pneumatic Tool Co.
 Ingersoll-Rand Co.
 Joy Manufacturing Co.
 Termite Drills, Inc.
 Timken Roller Bearing Co.
 Worthington Corp.

Drills (Electric)

Wodack Electric Tool Corp.

Elevators (Material)

 Chain Belt Co.
 Iowa Mfg. Co.
 Link-Belt Co.
 Universal Engineering Corp.

Engines

 Allis-Chalmers Tractor Div.
 American Hoist & Derrick Co.
 Buda Co.
 Caterpillar Tractor Co.
 Cummins Engine Co.
 Detroit Diesel Engine Division
 Harnischfeger Corp.
 Hercules Motors Corp.
 Ingersoll-Rand Co.
 International Harvester Co.
 LeRoi Co.
 Murphy Diesel Co.
 Waukesha Motor Co.
 Wisconsin Motor Corp.

Expansion Joints

Laclede Steel Co.

Explosives

 American Cyanamid Co.
 Atlas Powder Co.

Financing

C.I.T. Corp.

Finishing Machines (Bituminous)

 Barber-Greene Co.
 Blaw-Knox Division
 Foote Co.
 Standard Steel Corp.

Finishing Machines (Concrete)

Blaw-Knox Division

Floor Covering

Coleman Floor Co.

UNITED STATES FIDELITY AND GUARANTY COMPANY



Baltimore, Maryland

FIDELITY AND SURETY BONDS
 BURGLARY AND CASUALTY INSURANCE
 FIRE AND ALLIED LINES INSURANCE

Fifty Branches—Claim Offices at All Points of Importance

Flooring

Johns-Manville Corp.
Truscon Steel Co.

Forms (Concrete) and Accessories

Carl Besch Co.
Blaw-Knox Division
Economy Forms Corp.
Heltzel Steel Form & Iron Co.
A. C. Horn Co.
Joseph T. Ryerson & Son, Inc.
Superior Concrete Accessories, Inc.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.
Williams Form Engineering Corp.

Foundations

Raymond Concrete Pile Co.

Generating Sets (Electric)

Caterpillar Tractor Co.
Master Vibrator Co.
Murphy Diesel Co.

Graders

J. D. Adams Mfg. Co.
Allis-Chalmers Tractor Div.
Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.
Gradall Division
Koehring Co.
W. A. Riddell Corp.

Gravel Plants (Portable)

Gruendler Crusher & Pulverizer Co.
Iowa Mfg. Co.
Thomas Hoist Co.

Grinders (Electric)

Independent Pneumatic Tool Co.
Wodack Electric Tool Corp.

Hammers (Electric)

Independent Pneumatic Tool Co.
Master Vibrator Co.
Wodack Electric Tool Corp.

Hardsurface (Welding)

American Manganese Steel Division

Hoists

American Hoist & Derrick Co.
Clyde Iron Works
Construction Machinery Co.
Gar Wood Industries
Gruendler Crusher & Pulverizer Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
Joy Manufacturing Co.
McKiernan-Terry Corp.
Osgood Co.
Thomas Hoist Co.

Hose (Air, Water, Steam, Suction)

United States Rubber Co.

Industrial Financing

C.I.T. Corp.

Insurance (Automobile, Casualty, Compensation, Liability)

Aetna Casualty & Surety Co.
American Casualty Co.
Central Surety & Insurance Corp.
Employers Mutuals of Wausau
Glens Falls Indemnity Co.
Massachusetts Bonding & Insurance Co.
United States Fidelity & Guaranty Co.

Jacks

Buda Co.

Jacks (Scaffold)

Wilson-Albrecht Co.

Joists (Steel)

Ceco Steel Products Corp.
Laclede Steel Co.
Macomber, Inc.

Kettles, Heating (Asphalt & Tar)

Standard Steel Works
White Mfg. Co.

Lighting Plants

LeROI Co.

Linoalum

Coleman Floor Co.

Loaders (Portable)

J. D. Adams Mfg. Co.
Barber-Greene Co.
Link-Belt Co.

Lubricants

Gulf Oil Corp.
Lubriplate Division

Menders (Hose)

Dixon Valve & Coupling Co.
Ingersoll-Rand Co.

Mixers (Truck)

Blaw-Knox Division
Chain Belt Co.
Worthington Corp.

Mixing Plants

Blaw-Knox Division
L. Burnmeister
Butler Bin Co.
Chain Belt Co.
C. S. Johnson Co.
Worthington Corp.

Mortar (Masonry)

Lehigh Portland Cement Co.
Marquette Cement Mfg. Co.

Nipples (Hose)

Dixon Valve & Coupling Co.

Pan Forms (Concrete)

Gateway Erectors, Inc.

Partitions (Steel, Load-Bearing)

Macomber, Inc.

Pile Drivers

American Hoist & Derrick Co.
Austin-Western Co.
Bucyrus-Erie Co.
Harnischfeger Corp.

Pile Drivers Contd. to P. 214

**ORDERED
&
SHIPPED**

to C. A. Lippincott
& Bro., Inc.
Moorestown, N. J.



2 JAHN 408 TILTS and 1 425 SEMI-TRAILER

Realizing the tremendous versatility of Jahn Trailers, C. A. Lippincott & Bro., Inc., Moorestown, N. J. last month placed their order for, and received, two 408 Tilt Trailers and a 425 Semi-Trailer.

The THD Semi is fully equipped with side extension brackets for extra width and a special "beaver tail" for easy loading. The Tilt Trailers are widely accepted for their easy handling—a one man operation from job to job.

You, too, can know the advantages of Jahn Trailers, famous for their rugged construction that means strength and stamina under the toughest conditions, by mailing the attached coupon today for further information on our complete line of Jahn Trailers.

PRESSED STEEL CAR COMPANY, INC.
Jahn Trailer Division
6 N. Michigan Ave., Chicago 2, Ill.
Dept. CON



Dear Sir:

Send me literature on the trailers checked below.

☐ Tilt Trailers ☐ Semi-trailers, Capacity _____

Name _____

Address _____

City _____ State _____

ADVERTISERS' PRODUCTS

Pile Drivers Contd. from P. 213

Ingersoll-Rand Co.
Joy Manufacturing Co.
Link-Belt Co.
Marion Power Shovel Co.
McKiernan-Terry Corp.
Northwest Engineering Co.
Osgood Co.
Thew Shovel Co.

Piles (Concrete)

Raymond Concrete Pile Co.

Piling (Steel)

Albert Pipe Supply Co.
Allied Structural Steel Cos.
American Bridge Co.
Armco Drainage & Metal Products
Bethlehem Steel Co.
L. B. Foster Co.
Union Metal Manufacturing Co.

Pipe

Albert Pipe Supply Co.
Armco Drainage & Metal Products
L. B. Foster Co.
Johns-Manville Corp.
Laclede Steel Co.
Naylor Pipe Co.

Plywood

Carl Besch Co.
Williams & Co.

Process Screen Plates for Equipment Identification

Equipment Identification Co.
Reinhart Fajen

Pumps (Contractors')

Barnes Mfg. Co.
C.H. & E. Mfg. Co.
Carver Pump Co.
Chain Belt Co.
Complete Machinery & Equipment Co.
Construction Machinery Co.
Gorman-Rupp Co.
Griffin Wellpoint Corp.
Independent Pneumatic Tool Co.
Ingersoll-Rand Co.
Jaeger Machine Co.
Leyman Mfg. Corp.
Marlow Pumps
Moretrench Corp.
Novo Engine Co.
Rice Pump & Machine Co.
Sterling Machinery Corp.
Worthington Corp.

Pumps (Jetting)

Complete Machinery & Equipment Co.
Foundation Equipment Corp.
Gorman-Rupp Co.
Griffin Wellpoint Corp.
Moretrench Corp.

Quantity Surveys

H. A. Sloane Associates

Quarry Plants

Austin-Western Co.
Iowa Mfg. Co.
Thomas Hoist Co.
Universal Engineering Corp.

Rail

L. B. Foster Co.

Railway Equipment & Track Material

Buda Co.
L. B. Foster Co.
Wisconsin Motor Corp.

Reinforcement Accessories

Economy Forms Corp.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.
Williams Form Engineering Corp.

Reinforcing Steel and Mesh

American Bridge Co.
Bethlehem Steel Co.
Ceco Steel Products Corp.
Laclede Steel Co.
Joseph T. Ryerson & Son, Inc.
Truscon Steel Co.

Rollers

Austin-Western Co.
Baker Manufacturing Co.
Blaw-Knox Division
Bucyrus-Erie Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.
R. G. LeTourneau, Inc.
W. A. Riddell Corp.

Roof (Deck Steel)

Allied Structural Steel Cos.
Ceco Steel Products Corp.
R. C. Mahon Co.
Truscon Steel Co.

Roofing

Johns-Manville Corp.

Rope (Wire)

American Hoist & Derrick Co.
American Steel & Wire Co.
L. B. Foster Co.
R. G. LeTourneau, Inc.
Joseph T. Ryerson & Son, Inc.

Sash (Metal, Wood)

Hope's Windows, Inc.

Saws (Chain and Portable)

Independent Pneumatic Tool Co.
Mall Tool Co.

Scaffolding (Sectional Steel, Tubular Steel)

Patent Scaffolding Co.
Safway Steel Products, Inc.
Wilson-Albrecht Co.

Scarifiers

J. D. Adams Mfg. Co.
Austin-Western Co.
Baker Manufacturing Co.

Scrapers

Austin-Western Co.
Baker Manufacturing Co.
Bucyrus-Erie Co.

MASSACHUSETTS BONDING AND INSURANCE COMPANY

WALLACE FALVEY, PRESIDENT

HOME OFFICE: BOSTON

EXPERT CONTRACT BOND UNDERWRITERS

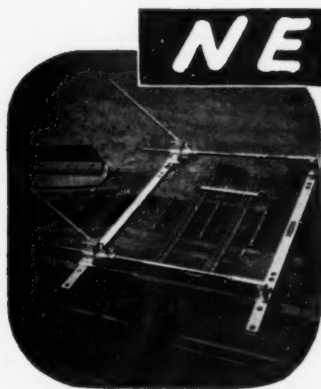
IN SUCCESSFUL OPERATION FOR 45 YEARS

Branch Offices and Agencies from Coast to Coast

Originators of bonds covering some of the largest projects in the United States, including Golden Gate Bridge, San Francisco, Grand Coulee Dam, Washington and numerous others.

Contact "Massachusetts Bonding" in your territory

- Caterpillar Tractor Co.**
Galion Iron Works & Mfg. Co.
Gar Wood Industries
LaPlant-Choate Manufacturing Co.
R. G. LeTourneau, Inc.
W. A. Riddell Corp.
- Screens (Sand, Gravel & Coal)**
Gruendler Crusher & Pulverizer Co.
Iowa Mfg. Co.
Link-Belt Co.
- Shores**
Symons Clamp & Mfg. Co.
- Shovels (Power)**
American Hoist & Derrick Co.
Austin-Western Co.
Baldwin-Lima-Hamilton Corp.
Bay City Shovels, Inc.
Bucyrus-Erie Co.
Butler Bin Co.
Gar Wood Industries
Harnischfeger Corp.
Koehring Co.
Link-Belt Speder Corp.
Manitowoc Engineering Works
Marion Power Shovel Co.
Michigan Power Shovel Co.
Northwest Engineering Co.
Osgood Co.
Thew Shovel Co.
Unit Crane and Shovel Corp.
- Shutters (Fire, Labeled)**
Kinnear Mfg. Co.
R. C. Mahon Co.
- Slings (Wire Rope)**
American Hoist & Derrick Co.
- Spreaders (Bituminous Surface)**
Foote Co.
Galion Iron Works & Mfg. Co.
Universal Engineering Corp.
- Spreaders (Gravel, Stone, Sand and Chemicals)**
Gar Wood Industries
- Stabilizing Equipment**
Gruendler Crusher & Pulverizer Co.
Harnischfeger Corp.
Iowa Mfg. Co.
Seaman Motors, Inc.
- Steel (Structural)**
Allied Structural Steel Cos.
American Bridge Co.
Bethlehem Steel Co.
Flint Steel Corp.
Fort Pitt Bridge Works
International Steel Co.
Macomber, Inc.
Joseph T. Ryerson & Son, Inc.
Truscon Steel Co.
- Steering (Hydraulic Power)**
Garrison Manufacturing Co.
- Surety Bonds**
Aetna Casualty & Surety Co.
American Casualty Co.
American Surety Co.
Central Surety & Insurance Corp.
Employers Mutuals of Wausau
Fidelity & Deposit Co.
Fire Association of Philadelphia
Glens Falls Indemnity Co.
Insurance Co. of North America
Massachusetts Bonding & Insurance Co.
National Surety Corp.
Phoenix-London Group
United States Fidelity & Guaranty Co.
- Swing Stages**
Wilson-Albrecht Co.
- Taglines (Automatic)**
McCaffrey-Ruddock Tagline Corp.
- Tarpaulins**
A. Mamaux & Son
- Teeth (Buckets, Shovels, Tranchers, etc.)**
H & L Tooth Co.
- Tile (Asphalt, Rubber, Cork)**
Coleman Floor Co.
- Timber (Fabricated Structural Members)**
Weyerhaeuser Sales Co.
- Tires**
General Tire & Rubber Co.
Goodyear Tire & Rubber Co.
United States Rubber Co.
- Tools (Pneumatic, Electric)**
Allis-Chalmers Co.
Gruendler Crusher & Pulverizer Co.
Ingersoll-Rand Co.
Joy Manufacturing Co.
Worthington Corp.
- Torches (Kerosene)**
White Mfg. Co.
- Tractors**
Allis-Chalmers Tractor Div.
Caterpillar Tractor Co.
International Harvester Co.
Oliver Corp., Industrial Div.



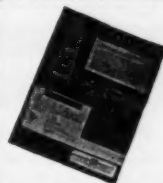
NEW!

Belt Stretcher by FARNCO Builders of Nationally Recognized All Aluminum Conveyors

Something new in belt lacing!
Great Power with little effort!

Belt breakdowns now can be quickly repaired by the Farnco Belt Stretcher up to 90% faster. Merely clamp loose ends together, place the replacement part between and through a simple jacking movement, pull together and make final lace. Fits any belt size width from 8", 10", 12", 14" to 16".

If you value time, you'll want this handy tool as a permanent part for your repair kit.



Get our pictorially described literature on FARNCO All-Purpose Aluminum Conveyors.

G.N. Crawford Equipment Co.

6714 KELLY ST. PITTSBURGH 8, PENNA.

Or for further details write The Constructor, Munsey Building, Washington 4, D. C.



Measured Production When It's A. G. C. Rated

Mixer "output" need no longer be an unknown quantity to architects, engineers and contractors engaged in the serious business of estimating concrete, or determining the proper mixing capacity of a drum.

That Is — Not If the Mixer Is A.G.C. Rated . . . For drum sizes and proper mixing capacities are guaranteed on all mixers wearing the A.G.C. label.

Protect yourself — be sure the mixer you buy is A.G.C. rated.



Mixer Manufacturers Bureau

Affiliated with the Associated
General Contractors of America, Inc.



CHAIN BELT COMPANY
Milwaukee, Wis.

CONSTRUCTION MACHINERY CO.
Waterloo, Iowa

THE FOOTE CO., INC.
Nunda, N. Y.

THE JAEGER MACHINE CO.
Columbus, Ohio

THE KNICKERBOCKER CO.
Jackson, Mich.

KOEHRING COMPANY
Milwaukee, Wis.

KWIK-MIX COMPANY
Port Washington, Wis.

THE T. L. SMITH COMPANY
Milwaukee, Wis.

WORTHINGTON PUMP AND MACHINERY CORPORATION
Construction Equipment Division, Dunellen, N. J.

ADVERTISERS' PRODUCTS

Trailers (Dump & Crawler Wheel)

Euclid Road Machinery Co.
R. G. LeTourneau, Inc.

Trailers (Heavy Equipment)

Jahn Trailer Division
Rogers Bros. Corp.

Trenchers

Barber-Greene Co.
Cleveland Trencher Co.
Gradall Division
Harnischfeger Corp.
Independent Pneumatic Tool Co.
Michigan Power Shovel Co.
Parsons Co.
Unit Crane and Shovel Corp.

Trusses (Adjustable Steel)

Patent Scaffolding Co.
Safway Steel Products, Inc.

Truck Axles

Eaton Mfg. Co., Axle Division

Trucks (Motor)

Euclid Road Machinery Co.
International Harvester Co.

Trusses (Steel)

Macomber, Inc.

Tunnel Liner Plates

Armo Drainage & Metal Products

Valves (Air—Self-Heating)

Dixon Valve & Coupling Co.

Wagons (Dump)

Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
LaPlant-Choate Manufacturing Co.
R. G. LeTourneau, Inc.

Walls

R. C. Mahon Co.

Washing Plants

Austin-Western Co.
Iowa Mfg. Co.
Link-Belt Co.
Universal Engineering Corp.

Welding Connectors (Structural)

J. H. Williams & Co.

Wellpoint Systems

Complete Machinery & Equipment Co.
Foundation Equipment Corp.
Griffin Wellpoint Corp.
Moretrench Corp.

Winches

Clyde Iron Works
Gar Wood Industries

MANUFACTURERS LISTED IN GUIDE

J. D. Adams Mfg. Co.
Indianapolis 6, Ind.

Aetna Casualty & Surety Co.
Hartford 15, Conn.

Albert Pipe Supply Co.
Berry & N. 13th St.
Brooklyn 11, N. Y.

Allied Structural Steel Cos.
20 N. Wacker Drive
Chicago 6, Ill.

Allis-Chalmers Co.
Milwaukee 1, Wis.

American Bridge Division
United States Steel Co.
Frick Bldg.
Pittsburgh, Pa.

American Casualty Co.
Reading, Pa.

American Cyanamid Co.
30 Rockefeller Plaza
New York 20, N. Y.

American Hoist & Derrick Co.
St. Paul 1, Minn.

American Manganese Steel Division, American Brake Shoe Co.
Chicago Heights, Ill.

American Steel & Wire Division
United States Steel Co.
Rockefeller Bldg.
Cleveland 13, Ohio

American Surety Co.
100 Broadway
New York 5, N. Y.

Armo Drainage & Metal Products, Inc.
2280 Curtis St.
Middletown, Ohio

Atlas Powder Co.
Wilmington 99, Del.

Austin-Western Co.
Aurora, Ill.

Baker Manufacturing Co.
569 Stanford Ave.
Springfield, Ill.

Baldwin-Lima-Hamilton Corp.
Construction Equipment Division
Lima, Ohio

Barber-Greene Co.
Aurora, Ill.

Barnes Mfg. Co.
603 N. Main St.
Mansfield, Ohio

Bay City Shovels, Inc.
Bay City, Mich.

MANUFACTURERS LISTED IN GUIDE

Carl Besch Co.
Grand Central Terminal
New York 17, N. Y.

Bethlehem Steel Co.
Bethlehem, Pa.

Blaw-Knox Division
2060 Farmers Bank Bldg.
Pittsburgh 22, Pa.

Bucyrus-Erie Co.
South Milwaukee, Wis.

Buda Co.
Harvey, Ill.

L. Burmeister
Milwaukee 14, Wis.

Butler Bin Co.
Waukesha, Wis.

C. H. & E. Mfg. Co.
3842 N. Palmer St.
Milwaukee 12, Wis.

C.I.T. Corp.
1 Park Ave.
New York 16, N. Y.

Carver Pump Co.
Muscatine, Iowa

Caterpillar Tractor Co.
Peoria 8, Ill.

Ceco Steel Products Corp.
5601 W. 26th St.
Chicago 50, Ill.

Central Surety and Insurance Corp.
1737 McGee St.
Kansas City 10, Mo.

Chain Belt Co.
4625 W. Greenfield Ave.
Milwaukee 1, Wis.

Cleveland Trencher Co.
20100 St. Clair Ave.
Cleveland 17, Ohio

Clyde Iron Works
Duluth 1, Minn.

Coleman Floor Co.
936 N. Michigan Ave.
Chicago 11, Ill.

Complete Machinery & Equipment Co.
36-40 11th St.
Long Island City 1, N. Y.

Concrete Surfacing Machinery Co.
Cincinnati 32, Ohio

Construction Machinery Co.
Waterloo, Iowa

G. N. Crawford Equipment Co.
6714 Kelly St.
Pittsburgh 8, Pa.

Cummins Engine Co.
Columbus, Ind.

Detroit Diesel Engine Division,
General Motors Corp.
Detroit 28, Mich.

Dixon Valve & Coupling Co.
Columbia & Hancock Sts.
Philadelphia 22, Pa.

Eaton Mfg. Co., Axle Division
739 E. 140th St.
Cleveland 10, Ohio

Economy Forms Corp.
4301 E. 14th St.
Des Moines 13, Iowa

Electric Taper & Equipment Co.
Ludington, Mich.

Employers Mutuals of Wausau
Wausau, Wis.

Equipment Identification Co.
515 Peoples Bank Bldg.
Indianapolis 4, Ind.

Euclid Road Machinery Co.
Cleveland 17, Ohio

Reinhart Fajen
Box 115
Warsaw, Mo.

Fidelity & Deposit Co.
Fidelity Bldg.
Baltimore 3, Md.

Fire Association of Philadelphia
401 Walnut St.
Philadelphia 6, Pa.

Flint Steel Corp.
P.O. Box 1289
Tulsa, Okla.

Foot Co.
1908 State St.
Nunda, N. Y.

Fort Pitt Bridge Works
Pittsburgh 22, Pa.

L. B. Foster Co.
Pittsburgh 30, Pa.

Foundation Equipment Corp.
37-37 10th St.
Long Island City 1, N. Y.

Galion Iron Works & Mfg. Co.
Galion, Ohio

Gar Wood Industries
Findlay Division
Wayne, Mich.

Garrison Manufacturing Co.
1500 Santa Fe Ave.
Los Angeles 21, Calif.

Gateway Erectors, Inc.
3233 W. Grand Ave.
Chicago 51, Ill.

General Tire & Rubber Co.
Akron, Ohio

Glens Falls Indemnity Co.
Glens Falls, N. Y.

Goodyear Tire & Rubber Co.
Akron 16, Ohio

Gorman-Rupp Co.
Mansfield, Ohio

F&D has specialized for more than half a century in meeting the bonding requirements of contractors and makes its unrivalled facilities readily available to them through its experienced representatives in all parts of the country.

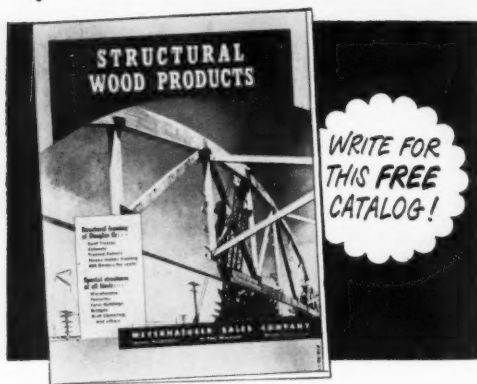


FIDELITY and DEPOSIT
COMPANY OF MARYLAND

Founded 1890-Baltimore, Md.

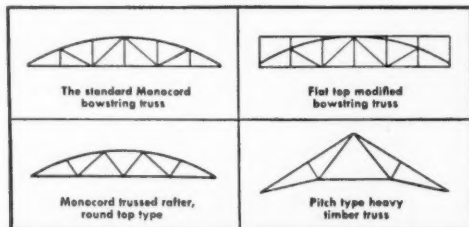
AFFILIATE: AMERICAN BONDING COMPANY OF BALTIMORE

Structural Wood Framing Systems by Weyerhaeuser



● This book illustrates and describes structural wood products that are precision-fabricated by Weyerhaeuser. It features a variety of types of roof trusses: bowstring, flat top, tandem, and pitched, for post-free, clear-span buildings, 30 feet and wider . . . round top and pitched type trussed rafters . . . segmental arched rafters for 30 to 50 foot spans . . . buttressed arches for 50 to 100 foot spans . . . girders and other wood structural systems.

These products are fabricated from stress graded Douglas Fir lumber and delivered to the job site complete with hardware, ready for erection by local crews. The catalog includes pertinent engineering and design data. Write our nearest office for the catalog and other information.



WEYERHAEUSER

SALES COMPANY

FABRICATING DEPARTMENT

SAINT PAUL 1, MINNESOTA

TACOMA, WASH.

NEWARK, N. J.

MANUFACTURERS LISTED IN GUIDE

Gradall Division
Warner & Swasey Co.
Cleveland 8, Ohio

Great Lakes Carbon Corp.
Building Products Division
18 E. 48th St.
New York 17, N. Y.

Griffin Wellpoint Corp.
881 E. 141st St.
New York 54, N. Y.

Gruendler Crusher & Pulverizer Co.
St. Louis 6, Mo.

Gulf Oil Corp.
Gulf Building
Pittsburgh 30, Pa.

H & L Tooth Co.
1540 S. Greenwood Ave.
Montebello, Calif.

Harnischfeger Corp.
4418 W. National Ave.
Milwaukee 14, Wis.

Heltzel Steel Form & Iron Co.
Warren, Ohio

Hercules Motors Corp.
Canton 2, Ohio

Hope's Windows, Inc.
Jamestown, N. Y.

A. C. Horn Co.
10th St. & 44th Ave.
Long Island City 1, N. Y.

Hyatt Bearings Division
General Motors Corp.
Harrison, N. J.

Independent Pneumatic Tool Co.
Aurora, Ill.

Ingersoll-Rand Co.
11 Broadway
New York 4, N. Y.

Insurance Co. of North America
1600 Arch St.
Philadelphia, Pa.

International Harvester Co.
180 N. Michigan Ave.
Chicago 1, Ill.

International Steel Co.
1906 Edgar St.
Evansville 7, Ind.

Iowa Mfg. Co.
Cedar Rapids, Iowa

Jaeger Machine Co.
528 Dublin Ave.
Columbus 16, Ohio

John Trailer Division
Pressed Steel Car Co.
6 N. Michigan Ave.
Chicago 2, Ill.

Johns-Manville Corp.
New York 16, N. Y.

C. S. Johnson Co.
Champaign, Ill.

Joy Manufacturing Co.
Henry W. Oliver Bldg.
Pittsburgh 22, Pa.

Kinnear Mfg. Co.
650-680 Fields Ave.
Columbus 16, Ohio

Knickerbocker Co.
Jackson, Mich.

Koehring Co.
3026 W. Concordia Ave.
Milwaukee 16, Wis.

Kwik-Mix Co.
Port Washington, Wis.

Laclede Steel Co.
Arcade Bldg.
St. Louis 1, Mo.

LaPlant-Choate Manufacturing Co.
Cedar Rapids, Iowa

Lehigh Portland Cement Co.
Allentown, Pa.

LeRoi Co.
1706 S. 68th St.
Milwaukee 14, Wis.

R. G. LeTourneau, Inc.
Peoria 5, Ill.

Leyman Mfg. Corp.
Cincinnati 2, Ohio

Link-Belt Speeder Corp.
1201 Sixth St., S.W.
Cedar Rapids, Iowa

Lone Star Cement Corp.
100 Park Ave.
New York 17, N. Y.

Lubriplate Division
Fiske Brothers Refining Co.
Newark 5, N. J.

Macomber, Inc.
Canton 1, Ohio

R. C. Mahon Co.
Detroit 34, Wis.

Mall Tool Co.
7703 S. Chicago Ave.
Chicago 19, Ill.

A. Marmax & Son
120 Blvd. of the Allies
Pittsburgh 22, Pa.

Manitowac Engineering Works
Manitowac, Wis.

Marion Power Shovel Co.
Marion, Ohio

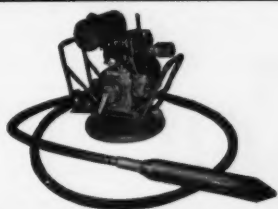
Marlow Pumps
Ridgewood, N. J.

Marquette Cement Mfg. Co.
20 N. Wacker Drive
Chicago 6, Ill.

(Continued on page 224)

INDEX OF ADVERTISERS

A.G.C. Forms and Reports	204
A.G.C. Manual of Accident Prevention	190
Adams, J. D., Manufacturing Co.	44
Agency—Caldwell, Larkin & Co.	
Aetna Casualty and Surety Co.	205
Agency—Wm. B. Remington, Inc.	
Albert Pipe Supply Co.	208
Agency—W. H. Hauptman Co.	
Allied Structural Steel Companies	20
Agency—The Fensholt Co.	
Allis-Chalmers Tractor Division	166, 167
Agency—Bert S. Gittins, Advertising	
American Bridge Division, United States Steel Co.	199
Agency—Batten, Barton, Durstine & Osborn, Inc.	
American Casualty Co.	220
American Cyanamid Co., Explosives Department	184
Agency—Hazard Advertising Co.	
American Hoist & Derrick Co.	48
Agency—The Alfred Colle Co.	
American Manganese Steel Division, American Brake Shoe Co.	65
Agency—Fuller & Smith & Ross, Inc.	
American Steel & Wire Division, United States Steel Co.	173
Agency—Batten, Barton, Durstine & Osborn, Inc.	
American Surety Co.	206
Agency—Albert Frank-Guenther Law, Inc.	
Armco Drainage & Metal Products, Inc.	67
Agency—N. W. Ayer & Son, Inc.	
Atlas Powder Co.	150
Agency—The Aitkin-Kynett Co.	
Austin-Western Co.	100, 101
Agency—The Advertising Corp.	
Baker Manufacturing Co., The	53
Agency—Spencer Curtiss, Inc.	
Baldwin-Lima-Hamilton Corp., Construction Equipment Division	149
Agency—Ketchum, MacLeod & Grove, Inc.	
Barber-Greene Co.	77
Agency—The Buchen Co.	
Barnes Manufacturing Co.	78
Agency—Odell and Associates	
Bay City Shovels, Inc.	139
Agency—Price, Hedrick & Tanner, Inc.	
Besch, Carl, Co., The	210
Bethlehem Steel Co.	74
Agency—Jones and Brakeley, Inc.	
Blaw-Knox Division	140, 141
Agency—Russell T. Gray, Inc.	
Buda Co., The	6, 46
Agency—Ross Llewellyn, Inc.	
Burmeister, L.	70
Butler Bin Co.	47
Agency—Davis-Greene Corp.	
C.I.T. Corp.	4
Agency—Fuller & Smith & Ross, Inc.	
Carver Pump Co.	209
Agency—Kreicker & Meloan, Inc.	
Caterpillar Tractor Co.	8
Agency—N. W. Ayer & Son, Inc.	
Ceco Steel Products Corp.	14
Agency—Charles O. Puffer, Advertising	



Only White Vibrators Have All These Features

which have made them successful all over the world.

All Flexible Drive Sections are Interchangeable.

No special sections, or expensive extra couplings needed. Each casing has ball bearing connector.

No Limit to Length of Flexible Drive.

Each driving core has slip joint which does not separate in service. Prevents stretching.

All Vibrator Heads are Interchangeable.

Can be put directly on any drive section. Can be opened for repairs. Double row ball bearings.

Grinding Spindles can be attached to any section.

No special drive needed. For wet and dry grinding.

Standard Power Units.

Gasoline engines or electric motors which can be serviced almost anywhere. Swivel base. Barrows.

Minimum of Repair Parts Needed.

One spare driving core is ample. Either 7' or 12'.

Write for circular and name of nearest dealer.

Elkhart 10 **White Mfg. Co.** Indiana

PLYWOOD...

**.. at mill price
in carload lots-**

Direct shipments of concrete form plywood to contractors from the finest Pacific Northwest mills



Exterior-type



Interior-type

Call on us to supply all your plywood needs including interior and exterior plywood in all grades

Williams and Company

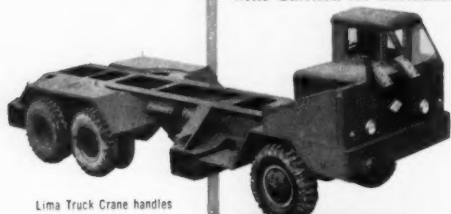
1446 Dexter Horton Building

Seattle 4, Wash.

Telephone SEneca 5935

More Work!

FROM
HEAVY-DUTY
ROAD
EQUIPMENT



Lima Truck Crane handles with ease when equipped with Garrison booster.

GARRISON HYDRAULIC STEERING BOOSTERS

Let this booster supply steering power! Every day contractors discover power steering increases operator efficiency on trucks, plows, graders and wheel-type tractors; makes turning easy even from a stand-still position; protects the operator and steering mechanism from jolts of rough roads! Operators work longer, more effectively without tiring! Garrison Boosters can be easily installed on most heavy-duty road equipment. Ask your dealer or write Garrison for information.

GARRISON
Manufacturing Co.

1500 SOUTH SANTA FE AVENUE

LOS ANGELES 21, CALIF.

Protect
WITH WATERPROOF
TARPAULINS
FOR EVERY COVERING
PURPOSE

IMMEDIATE
DELIVERY

Write, wire, or
phone COurt 1-3500.

100,000 sq. ft. in stock for immediate shipment. Standard sizes. Waterproof quality canvas. All weights, colors, styles, sizes available made to order.

A. MAMAUX & SON

120 Blvd. of the Allies

Pittsburgh 22, Penna.

Contract Bonds

A sound understanding of
the problems of the qualified
contractor who requires
surety credit

American Casualty Company

READING, PENNSYLVANIA

INDEX OF ADVERTISERS

Central Surety and Insurance Corp.	45
Agency—Jerome G. Calvin Advertising Agency	
Chain Belt Co.	24
Agency—The Buchen Co.	
Cleveland Trencher Co., The	43
Agency—Meermans, Inc.	
Clyde Iron Works, Inc.	Cover 4
Agency—Craves and Associates	
Coleman Floor Co.	224
Complete Machinery & Equipment Co.	208
Agency—William von Zehle & Co.	
Concrete Surfacing Machinery Co., The	196
Construction Machinery Companies	124
Agency—Weston-Barnett, Inc.	
Contractors Pump Bureau	154
Agency—Weston-Barnett, Inc.	
Crawford, G. N., Equipment Co.	215
Agency—Bert J. Long Advertising Agency	
Cummins Engine Co.	29
Agency—Needham, Louis and Brorby, Inc.	
Detroit Diesel Engine Division, General Motors Corp.	12
Agency—Kudner Agency, Inc.	
Dixon Valve & Coupling Co.	162
Agency—George C. Taylor	
Eaton Manufacturing Co., Axle Division	Cover 2
Agency—Clark & Rickerd, Inc.	
Economy Forms Corp.	97
Agency—The Blakemore Co.	
Electric Taper & Equipment Co.	26
Agency—Stevens, Inc.	
Employers Mutuals of Wausau	86
Agency—Hamilton Advertising Agency, Inc.	
Equipment Identification Co.	198
Euclid Road Machinery Co., The	69
Agency—The Bayless-Kerr Co.	
Fajen, Reinhart	172
Agency—Jerome G. Calvin Advertising Agency	
Fidelity and Deposit Co.	217
Agency—Merrill Anderson Co.	
Fire Association of Philadelphia	82
Agency—Horton-Noyes Co.	
Fiske Brothers Refining Co., Lubriplate Division	221
Agency—E. M. Freystadt Associates, Inc.	
Flint Steel Corp.	68
Agency—Watts, Payne—Advertising, Inc.	
Foote Co., The	193
Agency—Russell T. Gray, Inc.	
Fort Pitt Bridge Works	73
Agency—Walker & Downing	
Foster, L. B., Co.	39
Agency—Lando Advertising Agency	
Foundation Equipment Corp.	206
Agency—Harry Hurst, Advertising	
Galion Iron Works & Mfg. Co., The	105
Agency—The Morgan Advertising Co.	
Gar Wood Industries, Inc.	51
Agency—Dobbins, Woodward & Co.	
Garrison Manufacturing Co.	220
Agency—Clyde D. Graham, Advertising	

INDEX OF ADVERTISERS

Gateway Erectors, Inc.	68, 128
Agency—Walter E. Black Advertising Agency	
General Tire & Rubber Co.	109
Agency—D'Arcy Advertising Co.	
Glens Falls Indemnity Co.	222
Gorman-Rupp Co., The	203
Agency—Coleman Todd & Associates	
Gradall Division of the Warner & Swasey Co.	10
Agency—The Griswold-Eshleman Co.	
Great Lakes Carbon Corp.	126
Agency—Rickard & Co.	
Griffin Wellpoint Corp.	84
Agency—Posner-Zabin Advertising	
Gründler Crusher & Pulverizer Co.	197
Gulf Oil Corp.	66
Agency—Young & Rubicam, Inc.	
H & L Tooth Co.	Cover 3
Agency—Orange County Printing Co.	
Harnischfeger Corp.	136
Agency—The Buchen Co.	
Heltzel Steel Form & Iron Co., The	192
Agency—Meek and Thomas, Inc.	
Hercules Motors Corp.	85
Agency—The Jay H. Maish Co.	
Hope's Windows, Inc.	83
Agency—The Moss-Chase Co.	
Horn, A. C., Co.	62
Agency—Randolph & Elliott, Advertising	
Hyatt Bearings Division, General Motors Corp.	35
Agency—Campbell-Ewald Co.	
Independent Pneumatic Tool Co.	177
Agency—Connor Associates	
Ingersoll-Rand Co.	165
Agency—Rickard and Co.	
Insurance Co. of North America	32
Agency—N. W. Ayer & Son, Inc.	
International Harvester Co.	112, 113
Agency—Leo Burnett Co.	
International Steel Co.	58
Agency—Keller-Crescent Co.	
Iowa Manufacturing Co.	132, 133
Agency—Russell T. Gray, Inc.	
Jahn Trailer Division, Pressed Steel Car Co.	213
Agency—Albert Frank-Guenther Law, Inc.	
Johns-Manville	170
Agency—J. Walter Thompson Co.	
Johnson, C. S., Co.	57
Agency—Andrews Agency, Inc.	
Joy Manufacturing Co.	183
Agency—Walker & Downing	
Kinnear Manufacturing Co., The	99
Agency—Wheeler-Kight and Caine, Inc.	
Kochring Co.	56, 57
Agency—Andrews Agency, Inc.	
Laclede Steel Co.	129
Agency—Batz-Hodgson-Neuwoehner Advertising Agency	
LaPlant-Choate Manufacturing Co.	144, 145
Agency—Russell T. Gray, Inc.	

LUBRICATION ECONOMY

"IT'S THE GREASE FOR TOUGH OPERATIONS"



says McCulloch Motors Corp., makers of the famous McCulloch Chain Saws. "Three years ago we tested all makes of lubricants for the Zerol gears in the transmission of our saws. We now more than ever recommend the use of LUBRIPLATE Lubricants in our power tools."

1. LUBRIPLATE reduces friction and wear
2. LUBRIPLATE prevents rust and corrosion
3. LUBRIPLATE is economical to use

Write today for case histories of savings made through the use of LUBRIPLATE in your industry.

LUBRIPLATE DIVISION
Fiske Brothers Refining Co.
Newark 5, N.J.—Toledo 5, Ohio

The Different LUBRICANT!

DEALERS EVERYWHERE, consult your Classified Telephone Book

Fastest THROUGH CONCRETE



and YOU GET

MORE HOLES

PER DRILL WITH

TERMITE

ask any TERMITE user

NO MASONRY TOO TOUGH . . . where ordinary drills fail, TERMITES keep going to give you today's fastest and lowest-cost masonry drilling! Here's why:

1. TERMITES continuous spiral worm, beginning at the grinding inserts, starts to carry away material the instant it is pulverized.
2. TERMITE exclusive "WICTU" inserts last longer and cut faster.

Use TERMITES on your next drilling job . . . they're engineered to give you "more holes per dollar." Diameters from 1/4" to 3" Lengths up to 36". Use with electric drills. Literature available.

Order today through your distributor

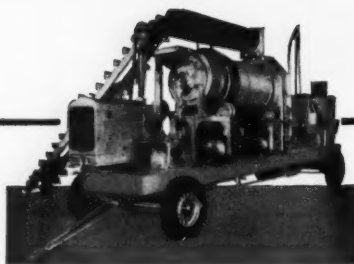
TERMITE

ROTARY MASONRY DRILLS

Made only by TERMITE DRILLS, INC.

98 N. Lotus Ave.

Pasadena 8, California



Portable Asphalt Plants For City, State, Repairs and Small Contract Work

These 8-10 tons per hour Asphalt Plants economically repair almost any pavement. Asphalt, brick, concrete, macadam, can be resurfaced or patched. Alleys, driveways, sidewalks, industrial plants can be paved.

Produce for immediate hot laying, or for deferred cold patching. Match any bituminous surface.

Mixes at plant, including labor, fuel, and overhead, cost about \$4 per ton, with \$2 aggregate. Average 160 to 200 sq. yds. 1" thick per hour. A money-maker for small contract work.

Also larger plants, 15 and 30 tons per hour.

Write for catalog and name of nearest dealer.

Elkhart 10 **White Mfg. Co.** Indiana



Ready to serve you

The beginning of the Glens Falls Group of Insurance Companies dates back to 1849. These companies, tested through the years, stand ready to serve you as carriers for Builder's Risk Policies covering Fire and Allied Lines and Contract Bonds—in fact, practically every form of Fire, Casualty and Bonding Protection.

"Old and Tried"

Organized 1849

Glens Falls

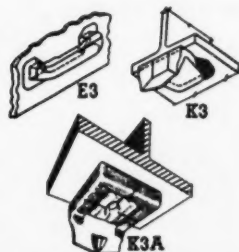
GLENS FALLS INSURANCE COMPANY
GLENS FALLS INDEMNITY COMPANY
COMMERCE INSURANCE COMPANY
Glens Falls, New York

INDEX OF ADVERTISERS

Lazenby, H. R.	172
Agency—Jerome C. Calvin Advertising Agency	
Lehigh Portland Cement Co.	55
Agency—Ceare-Marston, Inc.	
LeRoi Co., Cleveland Rock Drill Division	120, 121
Agency—Hoffman & York, Inc.	
LeTourneau, R. G., Inc.	16, 17
Agency—Andrews Agency, Inc.	
Link-Belt Speeder Corp.	52
Agency—Klau-Van Pietersom-Dunlap Associates, Inc.	
Lone Star Cement Corp.	2
Agency—Cowan & Dengler, Inc.	
Lubriplate Division, Fiske Brothers Refining Co.	221
Agency—E. M. Freystadt Associates, Inc.	
Macomber, Inc.	18
Mahon, R. C., Co., The	36
Agency—Anderson, Inc.	
Mall Tool Co.	210
Agency—Paulson-Gerlach & Associates, Inc.	
Mamaux & Son, A.	220
Agency—W. Craig Chambers, Inc.	
Manitowoc Engineering Works	174
Agency—Ervin R. Abramson, Advertising	
Marion Power Shovel Co.	93
Agency—The Jay H. Maish Co.	
Marlow Pumps	155
Agency—The Shivel-Hall Co.	
Marquette Cement Manufacturing Co.	106
Agency—George H. Hartman Co.	
Massachusetts Bonding and Insurance Co.	214
Master Vibrator Co.	194
Agency—Emerson H. Mook, Inc.	
McCaffrey-Ruddock Tagline Corp.	175
Agency—The Martin R. Klitten Co.	
McKiernan-Terry Corp.	94
Agency—Michel-Cather, Inc.	
Michigan Power Shovel Co.	54
Agency—Paxson Advertising, Inc.	
Mixer Manufacturers Bureau	216
Agency—Weston-Barnett, Inc.	
Moretrench Corp.	178
Agency—The Shivel-Hall Co.	
Murphy Diesel Co.	158
Agency—Russell T. Gray, Inc.	
National Surety Corp.	164
Agency—Parker-Allston Associates, Inc.	
Naylor Pipe Co.	59
Agency—Fred H. Ebersold, Inc.	
Northwest Engineering Co.	40
Agency—Russell T. Gray, Inc.	
Oliver Corp., The	181
Agency—The Buchen Co.	
Osgood Co., The	111
Agency—Howard Swink Advertising Agency, Inc.	
Owen Bucket Co., The	189
Agency—T. H. Ball & Son	
Paper-Calmenson & Co.	152, 153
Agency—Foulke Agency, Inc.	

Parsons Co.	57	Truscon Steel Co.	22
Agency—Andrews Agency, Inc.		Agency—Meldrum and Fewsmith, Inc.	
Patent Scaffolding Co., The	157	Union Metal Mfg. Co., The	123
Agency—Glenn, Jordan, Stoetzel, Inc.		Agency—The Griswold-Eshleman Co.	
Phoenix-London Group	30	Unit Crane & Shovel Corp.	200, 201
Agency—Parker-Ailston Associates, Inc.		Agency—Paulson-Cerlach & Associates, Inc.	
Raymond Concrete Pile Co.	169	United States Fidelity and Guaranty Co.	212
Agency—Needham & Grohmann, Inc.		United States Rubber Co.	127
Riddell, W. A., Corp.	179	Agency—Fletcher D. Richards, Inc.	
Agency—Harry M. Miller, Inc.		Universal Atlas Cement Co.	87
Rogers Bros. Corp.	116	Agency—Batten, Barton, Durstine & Osborn, Inc.	
Agency—T. H. Ball & Son		Universal Engineering Corp.	163
Ryerson, Joseph T., & Son, Inc.	1	Agency—W. D. Lyon Co.	
Safway Steel Products, Inc.	98	Universal Form Clamp Co.	90
Agency—The Cramer-Krasselt Co.		Agency—Ross Llewellyn, Inc.	
Seaman Motors, Inc.	115	Viber Co.	207
Agency—Davis-Greene Corp.		Agency—Walter C. Davison Co.	
Shunk Manufacturing Co.	196	Vibro-Plus Products, Inc.	114
Agency—The Morgan Advertising Co.		Agency—William von Zehle & Co.	
Sisalkraft Co., The	60	Warner & Swasey Co.	10
Agency—J. R. Pershall Co.		Agency—The Griswold-Eshleman Co.	
Sloane, H. A., Associates	31	Waukesha Motor Co.	202
Smith, T. L., Co., The	130	Agency—The Cramer-Krasselt Co.	
Agency—Paulson-Cerlach & Associates, Inc.		Wellman Engineering Co., The	28
Standard Steel Corp.	171	Agency—The Griswold-Eshleman Co.	
Agency—The McCarty Co.		Weyerhaeuser Sales Co.	218
Standard Steel Works	38	Agency—The Alfred Colle Co.	
Agency—James R. Reese Advertising Co.		White Mfg. Co.	219, 222
Superior Concrete Accessories, Inc.	195	Agency—Juhl Advertising Agency	
Agency—Admakers		Williams and Co.	219
Symons Clamp and Mfg. Co.	161	Agency—West-Marquis, Inc.	
Agency—Marsteller, Cebhardt and Reed, Inc.		Williams Form Engineering Corp.	191
Termite Drills, Inc.	221	Williams, J. H., & Co.	223
Agency—Frank Barrett Cole, Advertising		Wilson-Albrecht Co.	211
Thomas Hoist Co.	186	Agency—Kerker-Peterson & Associates	
Agency—Ross Llewellyn, Inc.		Wisconsin Motor Corp.	188
Timken Roller Bearing Co., The	61	Agency—Paulson-Cerlach & Associates, Inc.	
Agency—Batten, Barton, Durstine & Osborn, Inc.		Wodack Electric Tool Corp.	224
Trinity Division, General Portland Cement Co.	81	Worthington Corp., Construction Equipment Division	88, 89
Agency—Harris & Bond, Inc.		Agency—James Thomas Chirurg Co.	

WELDING CONNECTORS



Saxe Erection Units position and secure structural parts for welding. The adjustable K3A clip permits adjustment of structural members for plumbing and erection.

Use of these units eliminates all hole punching and produces the most economical, safe, and quickly erected structural frame.

Write for "Structural Welding Practice" manual, containing full engineering design information.

MFG. & SOLD by
J. H. Williams & Co.
Buffalo 7, New York

Canadian Representatives
Air Reduction Canada, Ltd.
Montreal 2, Canada

MANUFACTURERS LISTED IN GUIDE

(Continued from page 218)

Massachusetts Bonding and Insurance Co.
10 Post Office Square
Boston 9, Mass.

Master Vibrator Co.
105 Davis Ave.
Dayton 1, Ohio

McCaffrey-Ruddock Tagline Corp.
2131 E. 25th St.
Los Angeles 58, Calif.

McKiernan-Terry Corp.
18 Park Row
New York 38, N. Y.

Michigan Power Shovel Co.
485 Second St.
Benton Harbor, Mich.

Moretrench Corp.
90 West St.
New York 6, N. Y.

Murphy Diesel Co.
5333 W. Burnham St.
Milwaukee 14, Wis.

National Surety Corp.
4 Albany St.
New York, N. Y.

Naylor Pipe Co.
1280 E. 92d St.
Chicago 19, Ill.

Northwest Engineering Co.
Field Bldg., 135 S. LaSalle St.
Chicago 3, Ill.

Nova Engine Co.
212 Porter St.
Lansing 5, Mich.

Oliver Corp., Industrial Division
19300 Euclid Ave.
Cleveland 17, Ohio

Osgood Co.
Marion, Ohio

Owen Bucket Co.
7750 Breakwater Ave.
Cleveland 2, Ohio

Paper-Calmons & Co.
County Road B & Walnut St.
St. Paul 8, Minn.

Parsons Co.
Newton, Iowa

Patent Scaffolding Co.
38-21 12th St.
Long Island City 1, N. Y.

Phoenix-London Group
55 Fifth Ave.
New York, N. Y.

Raymond Concrete Pile Co.
140 Cedar St.
New York 6, N. Y.

Rice Pump & Machine Co.
Grafton, Wis.

W. A. Riddell Corp.
Bucyrus, Ohio

Rogers Bros. Corp.
225 Orchard St.
Albion, Pa.

Joseph T. Ryerson & Son, Inc.
P. O. Box 8000-A
Chicago 80, Ill.

Safway Steel Products, Inc.
6241 W. State St.
Milwaukee 13, Wis.

Seaman Motors, Inc.
276 N. 25th St.
Milwaukee 3, Wis.

Shunk Manufacturing Co.
Bucyrus, Ohio

Siakraft Co.
805 W. Wacker Drive
Chicago 6, Ill.

H. A. Sloane Associates
415 Lexington Ave.
New York 17, N. Y.

T. L. Smith Co.
2853 N. 32d St.
Milwaukee 10, Wis.

Standard Steel Corp.
5028 Boyle Ave.
Los Angeles 58, Calif.

Standard Steel Works
North Kansas City, Mo.

Sterling Machinery Corp.
1950 Santa Fe Ave.
Los Angeles 21, Calif.

Superior Concrete Accessories, Inc.
4110 Wrightwood Ave.
Chicago 39, Ill.

Symons Clamp & Mfg. Co.
4259 W. Diversey Ave.
Chicago 39, Ill.

Termite Drills, Inc.
98 N. Lotus Ave.
Pasadena 8, Calif.

Thew Shovel Co.
Lorain, Ohio

Thomas Hoist Co.
20 S. Hoyne Ave.
Chicago 12, Ill.

Timken Roller Bearing Co.
Canton 6, Ohio

Trinity White, General Portland Cement Co.
111 W. Monroe St.
Chicago 3, Ill.

Truscon Steel Co.
Youngstown 1, Ohio

Union Metal Manufacturing Co.
Canton 3, Ohio

Unit Crane and Shovel Corp.
6307 W. Burnham St.
Milwaukee 14, Wis.

United States Fidelity & Guaranty Co.
Baltimore 3, Md.

United States Rubber Co.
Rockefeller Center
New York 20, N. Y.

Universal Atlas Cement Co.
100 Park Ave.
New York 17, N. Y.

Universal Engineering Corp.
331 8th St.
Cedar Rapids, Iowa

Universal Form Clamp Co.
1238 N. Kostner
Chicago 51, Ill.

Viber Vibrators
726 S. Flower St.
Burbank, Calif.

Vibro-Plus Products, Inc.
54-11 Queens Blvd.
Woodside, N. Y.

Waukesha Motor Co.
Waukesha, Wis.

Wellman Engineering Co.
7015 Central Ave.
Cleveland 4, Ohio

Weyerhaeuser Sales Co.
2000 First National Bank Bldg.
St. Paul 1, Minn.

White Mfg. Co.
Elkhart, Ind.

Williams & Co.
1446 Dexter Horton Bldg.
Seattle 4, Wash.

Williams Form Engineering Corp.
Box 925, Madison Square Station
Grand Rapids 7, Mich.

J. H. Williams & Co.
Buffalo 7, N. Y.

Wilson-Albrecht Co.
3563 Wooddale Ave.
Minneapolis 16, Minn.

Wisconsin Motor Corp.
Milwaukee 46, Wis.

Wodack Electric Tool Corp.
4627 W. Huron St.
Chicago 44, Ill.

Worthington Corp.
Holyoke, Mass.

Worthington Corp.—Constr. Equip. Div.
Plainfield, N. J.



WODACK "DO-ALL" ELECTRIC HAMMER and DRILL

Drills Concrete
Masonry
Metal and
Wood



One Man with a Wodack
"Do-All" Hammer does as
much work as 12 to 15 men
using hand tools. Used by
Contractors, Installers and
Maintenance Departments.

Ask for the new Bulletin 510-C

Wodack Electric Tool Corp.
4627 W. Huron St., Chicago 44, Ill.

COAST-TO-COAST FLOOR COVERING



LINOLEUM-MASTIPAVE
ASPHALT TILE—RUBBER TILE
SPARKPROOF FINISHES

**America's Foremost Applicator
COLEMAN FLOOR COMPANY**

936 N. Michigan Ave., Chicago 11, Ill.

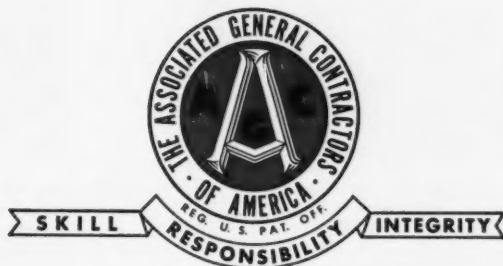
St. Louis

Los Angeles

JULY 1952

Directory of Membership

**THE ASSOCIATED GENERAL CONTRACTORS
OF AMERICA, INC.**



NATIONAL HEADQUARTERS: 1227 MUNSEY BUILDING • WASHINGTON 4, D. C.

TELEPHONE DISTRICT 1306

INDEX

<i>Officers and Directors</i>	226	<i>Alphabetical Roster</i>	246
<i>Committees</i>	231	<i>Roster by States</i>	284
<i>Chapters and Branches Index</i>	245	<i>National Members</i>	347

THE 1952 A.G.C. DIRECTORY

A.G.C. Officers for 1952

President	Vice-President	Secretary-Treasurer
ARTHUR S. HORNER A. S. Horner Construction Co. Denver, Colorado	C. P. STREET McDevitt & Street Co. Charlotte, North Carolina	WILLIAM MUIRHEAD Wm. Muirhead Construction Co. Durham, North Carolina

Executive Committee

ARTHUR S. HORNER A. S. Horner Construction Co. Denver, Colorado	F. W. HELDENFELS, Jr. Heldenfels Bros. Corpus Christi, Texas	ADOLPH TEICHERT, Jr. A. Teichert & Son, Inc. Sacramento, California
C. P. STREET McDevitt & Street Co. Charlotte, North Carolina	A. S. MACDONALD Strong & Macdonald, Inc. Tacoma, Washington	ARTHUR H. WELLS John Griffiths & Sons Construction Co. Chicago, Illinois
EDWARD P. COBLENTZ McLean Contracting Co. Baltimore, Maryland	JOHN MACLEOD Macco Corp. Paramount, California	W. MURRAY WERNER The Werner Co. Shreveport, Louisiana
WALTER L. COUSE Walter L. Couse & Co. Detroit, Michigan	GLEN W. MAXON Maxon Construction Co., Inc. Dayton, Ohio	D. W. WINKELMAN D. W. Winkelman Co. Syracuse, New York

District Directors

DISTRICT 1	DISTRICT 2	DISTRICT 3	DISTRICT 4
Montana DAN J. MOONEY Cahill-Mooney Construction Co. Butte B54	Arizona EDWARD O. EARL San Xavier Rock & Sand Co. Tucson B54	Colorado JAMES B. KENNEY James B. Kenney, Inc. Denver H54	Wyoming HOMER A. SCOTT Peter Kiewit Sons' Co. Sheridan H54
Washington JAMES W. CAWDREY Cawdrey & Vemo Seattle B54	California FRED J. EARLY, Jr. Fred J. Early, Jr., Co., Inc. San Francisco B54	California CHAS. L. HARNEY Chas. L. Harney, Inc. San Francisco Hv53	Utah J. P. GIBBONS Gibbons & Reed Co. Salt Lake City Hv55
Idaho PAUL VERNON Vernon Brothers Co. Boise Hv55	California JOHN MACLEOD Macco Corp. Paramount H53	California J. A. THOMPSON J. A. Thompson and Son Inglewood Hv55	New Mexico CHARLES H. LEMBKE Lembke Construction Co. Albuquerque B54
Oregon RAY H. NORTHCUTT Guy F. Atkinson Co. Portland Hv54	Nevada E. J. MAUPIN, Jr. Dodge Construction Inc. Fallon H54	California DAVID A. OLSON Olson & Hart Denver Hv54	Louisiana A. N. GOLDBERG A. N. Goldberg Inc. New Orleans H54
Alaska R. H. STOCK Stock & Grove Inc. Anchorage Hv54	California JOHN MACLEOD Macco Corp. Paramount H53	Oklahoma W. D. AMIS Amis Construction Co. Oklahoma City H55	Arkansas BEN M. HOGAN Ben M. Hogan & Co. Little Rock H54

The symbols denote the year in which a director's term expires, and the type of construction he represents: B—Building; H—Highway; Hv—Heavy.

(Directors continued on page 228)

National Officers for 1952



Tom Franklin

Vice President C. P. Street



Linson Studio

President Arthur S. Horner



Lionel Heymann

**Secretary-Treasurer
William Muirhead**



Archad

**Managing Director
H. E. Foreman**

A.G.C. DIRECTORY

(District Directors—continued)

Texas

HERMAN BROWN
Brown & Root Inc.
Austin

FRED FISHER
Fisher Constr. Co.
Houston

J. RUTLEDGE HILL
Gifford-Hill & Co.
Dallas

F. S. OLDT
F. S. Oldt Co.
Dallas

DISTRICT 5

Kansas

E. O. JOHNSON
Johnson Brothers Construction Co.
Salina

E. C. STEWART
Globe Construction Co.
Wichita

Nebraska

CARL W. OLSON
Olson Construction Co.
Lincoln

Missouri

JOSEPH E. LATTA
J. E. Latta Construction Co.
St. Louis

ROBERT W. LONG
Long Construction Co.
Kansas City

DISTRICT 6

Iowa

H. L. HOAK
Hoak Construction Co.
Des Moines

GEORGE C. KOSS
Koss Construction Co.
Des Moines

RUDOLPH W. WEITZ
The Weitz Co., Inc.
Des Moines

Minnesota

C. T. NAUGLE
Naugle-Leck Inc.
Minneapolis

L. D. SINCLAIR
Foley Brothers Inc.
St. Paul

North Dakota

JOSEPH M. POWERS
T. F. Powers Construction Co.
Fargo

South Dakota

J. L. MATERI
Northwestern Engineering Co.
Rapid City

DISTRICT 7

Illinois

PERCY F. LOISELLE
Triangle Constr. Co.
Kankakee

A. L. JACKSON
A. L. Jackson Co.
Chicago

B55 LESTER C. ROGERS
Bates & Rogers Construction Corp.
Chicago

Indiana

WM. H. JUNGCLAUS
Wm. P. Jungclauss Co.
Indianapolis

Hv55 ROBERT E. O'CONNOR
J. C. O'Connor & Sons Inc.
Fort Wayne

Wisconsin

B54 E. G. HOEPPNER
Hoepfner-Bartlett Co.
Eau Claire

DISTRICT 8

Michigan

C. L. DAVIS
Miller-Davis Co.
Kalamazoo

B53 LEET M. DENTON
Denton Construction Co.
Detroit

Hv54 W. J. STOREN, Jr.
W. J. Storen Co.
Detroit

Ohio

B54 FRED I. ROWE
W. L. Johnson Construction Co.
Columbus

E. J. WHEELER
Frank Messer & Sons, Inc.
Cincinnati

West Virginia

Hv54 RAY E. RITCHIE
Boso & Ritchie Inc.
Ravenswood

DISTRICT 9

Kentucky

B54 J. F. NICOLIN
Hays & Nicoulin Inc.
Louisville

Mississippi

B54 W. G. WETMORE
Jackson

Tennessee

Hv53 W. L. SHARPE
W. L. Sharpe Contracting Co.
Memphis

B54 MARK K. WILSON, Jr.
Mark K. Wilson Co.
Chattanooga

Alabama

H54 JOHN R. LATHRAM
Sullivan, Long & Hagerty
Birmingham

DISTRICT 10

North Carolina

H55 V. B. HIGGINS
V. B. Higgins Co.
Greensboro

B55 GEORGE W. KANE
Roxboro

Hv54 NELLO L. TEER, Jr.
Nello L. Teer Co.
Durham

South Carolina

B54 F. L. SHACKELFORD
Potter & Shackelford Construction
Co., Inc.
Greenville

Georgia

H53 P. D. CHRISTIAN, Jr.
Christian & Bell Co.
Atlanta

Florida

B54 J. L. EWELL
Ewell Construction Co.
Lakeland

B55 FRANK J. ROONEY
Frank J. Rooney Inc.
Miami

Virginia

H54 B. F. PARROTT
B. F. Parrott & Co., Inc.
Roanoke

DISTRICT 11

District of Columbia

Hv55 F. H. MARTELL
F. H. Martell Co., Inc.
Washington

Delaware

B53 FREDERIC G. KRAPF
Wilmington

Pennsylvania

H54 H. B. ALEXANDER
H. B. Alexander & Son, Inc.
Harrisburg

B54 MAX C. HARRISON
Harrison Construction Co.
Pittsburgh

B54 HOWARD H. STURDY
Dravo Corp.
Pittsburgh

Maryland

Hv54 JOHN K. RUFF
John K. Ruff Co.
Baltimore

New Jersey

B54 OLE HANSEN
Ole Hansen & Sons, Inc.
Pleasantville

H54 WILLIAM H. WELDON
The Weldon Contracting Co.
Westfield

The symbols denote the year in which a director's term expires, and the type of construction he represents: B—Building; H—Highway; Hv—Heavy.

(Directors continued on page 230)

National A. G. C. Headquarters Staff



Miller of Washington
James D. Marshall
Assistant Managing Director



Harris & Ewing
John C. Hayes
Legal Counsel



F. Marion Clark Studio
Charles S. Embrey
Administrative Assistant



Harris & Ewing
Walton A. Snow
Building Division



Chase News Photo
Archie N. Carter
Highway Division



Brooks
Burt L. Knowles
Engineer Adviser



Brooks
Harry J. Kirk
Research and Safety



Lionel Heymann
John B. Swem
Assistant Treasurer



George Lohr
William E. Woodruff
Public Relations



Harris & Ewing
James M. Sprouse
Assistant, Heavy Division



Harris & Ewing
Edward T. Kelly
Assistant, Labor Relations



Harris & Ewing
William E. Dunn
Assistant, Labor Relations



Ackad
Charlson I. Mehl
Administrative Aide



Ackad
Daniel K. Donovan
Administrative Aide



George Lohr
Willis L. Hatcher
Field Representative



Lionel Heymann
William G. Dooly, Jr.
The Constructor



Harris & Ewing
Marjorie S. Beck
The Constructor



Washington Post
Nicholas D. Pratt
The Constructor



George Lohr
Duane L. Cronk
The Constructor



Brooks
Mabel McCarthy
Office Assistant

A.G.C. DIRECTORY

(District Directors—continued)

New York

H. C. TURNER, Jr.
Turner Construction Co.
New York
R. P. BAYARD
Johnson, Drake & Piper, Inc.
New York

DISTRICT 12

Connecticut

GEORGE R. JOHNSON
Richard Johnson Co.
Hartford

Massachusetts

N. B. O'CONNELL
Turner Construction Co.
Boston

B53 Vermont

(No Director)

Hv55 Rhode Island

H. V. COLLINS
Providence

New Hampshire

PARKER H. RICE
Manchester Sand & Gravel Co.
Manchester

Maine

(No Director)

Hv53

(AT LARGE)

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Md.
(Chairman, Heavy Construction
& RR Contractors' Division)

Hv53

B54

F. W. HELDENFELS, Jr.
Heldenfels Brothers
Corpus Christi, Tex.
(Chairman, Highway Contractors'
Division)

H53

H54

Advisory Board

(Past President Members)

GEO. B. WALBRIDGE
Walbridge, Aldinger Co.
Detroit, Michigan
A. P. GREENSFELDER
Fruin-Colton Contracting Co.
St. Louis, Missouri
W. A. KLINGER
W. A. Klinger Co.
Sioux City, Iowa
E. P. PALMER
Senior and Palmer, Inc.
New York, New York
GUY F. ATKINSON
Guy F. Atkinson Co.
So. San Francisco, California
H. B. ZACHRY
H. B. Zachry Co.
San Antonio, Texas
M. W. WATSON
Topeka, Kansas
DAN W. KIMBALL
Owen-Ames-Kimball Co.
Grand Rapids, Michigan
WILLIAM MUIRHEAD
Wm. Muirhead Construction Co.
Durham, North Carolina
W. S. BELLOWS
W. S. Bellows Construction Corp.
Houston, Texas
F. W. PARROTT
C. F. Lytle Co.
Sioux City, Iowa
D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York
ADOLPH TEICHERT
A. Teichert & Son, Inc.
Sacramento, California
WALTER L. COUSE
Walter L. Couse & Co.
Detroit, Michigan
GLEN W. MAXON
Maxon Construction Co., Inc.
Dayton, Ohio

(Division Vice-Chairmen Members)

FRANK F. BURROWS
William & Burrows, Inc.
Burlingame, California

C. W. CUNNINGHAM
Condon-Cunningham Co.
Omaha, Nebraska
P. M. THORNTON
Thornton Construction Co.
Hancock, Michigan

(Appointed Members)

A. L. ATHERTON
Atherton Construction Co.
Seattle, Washington
GEO. H. ATKINSON
Guy F. Atkinson Co.
So. San Francisco, California
ELLIS W. BARKER
Ellis W. Barker Co.
Salt Lake City, Utah
ALBERT D. BLAKESLEE
C. W. Blakeslee & Sons, Inc.
New Haven, Connecticut
O. W. COLLINS
Port Arthur, Texas
L. A. DAVIDSON
Lansing, Michigan
MORRIS E. DeWITT
Porter-DeWitt Construction Co.
Poplar Bluff, Missouri
N. K. DICKERSON, Jr.
Dickerson, Inc.
Monroe, North Carolina
C. B. FORD
Forcum-James Co.
Dyersburg, Tennessee
E. P. FORRESTEL
Cold Spring Construction Co.
Akron, New York
BEN C. GERWICK
Ben C. Gerwick, Inc.
San Francisco, California
H. H. HALL
H. H. Hall Construction Co.
East St. Louis, Illinois
IRA H. HARDIN
Ira H. Hardin Co.
Atlanta, Georgia
D. A. HARMON
Harmon Construction Co.
Oklahoma City, Oklahoma

(Hv)

(H)

J. A. HENDERSON
United Construction Co.
Winona, Minnesota
V. N. HOLDERMAN
V. N. Holderman & Sons, Inc.
Columbus, Ohio
G. W. JAMES
T. L. James & Co., Inc.
Ruston, Louisiana
CARL B. JANSEN
Dravo Corp.
Pittsburgh, Pennsylvania
THOMAS H. JOYCE, Jr.
Joyce Bros. Contracting Co.
Springfield, Illinois
J. A. KELLY
J. A. Kelly Co.
Nashville, Tennessee
M. B. KILLIAN
M. B. Killian & Co.
San Antonio, Texas
WALTER V. MITTON
Walter V. Mitton, Inc.
Augusta, Maine
CARL E. NELSON
Carl E. Nelson Co.
Logan, Utah
WALTER A. PRIESTER
Priester Construction Co.
Davenport, Iowa
C. R. RALPH
Kaw Paving Co., Inc.
Topeka, Kansas
LEO P. RICHARDSON
W. E. Wood Co.
Detroit, Michigan
FRANK W. ROBERTSON
Robertson-Henry Co.
Huntington, West Virginia
J. W. SHOEMAKER
Warren Brothers Roads Co.
Cambridge, Massachusetts
R. A. SMITH
P. J. Walker Co.
Los Angeles, California
ARTHUR H. WELLS
John Griffiths & Son Construction Co.
Chicago, Illinois
MARSHALL J. WYLIE
Wylie Bros.
Albuquerque, New Mexico

Division Officers

Building Contractors' Division

Chairman

W. MURRAY WERNER
The Werner Co.
Shreveport, Louisiana

Vice-Chairman

FRANK F. BURROWS
Williams & Burrows, Inc.
Burlingame, California

Heavy Construction and Railroad Contractors' Division

Chairman

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

Vice-Chairman

C. W. CUNNINGHAM
Condon-Cunningham Co.
Omaha, Nebraska

Highway Contractors' Division

Chairman

F. W. HELDENFELS, Jr.
Heldenfels Bros.
Corpus Christi, Texas

Vice-Chairman

P. M. THORNTON
Thornton Construction Co.
Hancock, Michigan

National Staff

H. E. FOREMAN
Managing Director

J. D. MARSHALL
Assistant Managing Director

C. S. EMBREY
Administrative Assistant
A. N. CARTER
H. J. KIRK
B. L. KNOWLES

W. A. SNOW

J. B. SWEM

W. E. WOODRUFF

Secretaries' and Managers' Council

Chairman

EARLE W. DEVALON
Managing Director
Colorado Contractors Association

Vice-Chairman (Highway and Heavy Chapters)

A. H. HARDING
Manager
Portland Chapter

Secretary

WILLIAM C. BOWDEN
Secretary, Master Builders Association
of Allegheny County, Pennsylvania

Vice-Chairman (Building Chapters)

ROBERT PATTEN
Managing Director
Carolinas Branch

Accident Prevention Committee

Chairman

H. B. ALEXANDER
H. B. Alexander & Son, Inc.
Harrisburg, Pennsylvania

Vice-Chairman

IRA H. HARDIN
Ira H. Hardin Co.
Atlanta, Georgia
W. E. ABBITT
W. A. Abbit Co.
Charleston, West Virginia
EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland
HARRY L. CONRAD
The Christman Co.
Lansing, Michigan

JOHN H. DAHLMAN
Dahlman Construction Co.
Milwaukee, Wisconsin

BEN C. GERWICK
Ben C. Gerwick, Inc.
San Francisco, California

A. T. GLASSETT
W. J. Barney Corp.
New York, New York

W. M. GOLDSTON
The Goldston Co.
Corpus Christi, Texas

G. O. GRIFFIN
Dravo Corporation
Pittsburgh, Pennsylvania

LYELL HALVERSON
Madsen Construction Co.
Minneapolis, Minn.

IRWIN KAHN
Kahn Construction Co.
Columbia, S. Carolina

C. R. RALPH
Kaw Paving Co.
Topeka, Kansas

MARK K. WILSON, Jr.
Mark K. Wilson Co.
Chattanooga, Tennessee

MARSHALL J. WYLIE
Wylie Bros.
Albuquerque, New Mexico

T. H. YOELL
Diesel Oil Sales Co.
Seattle, Washington

Accident Prevention Endowment Fund

ARTHUR S. HORNER
A. S. Horner Construction Co.
Denver, Colorado

GLEN W. MAXON
Maxon Construction Co., Inc.
Dayton, Ohio

WALTER L. COUSE
Walter L. Couse & Co.
Detroit, Michigan

Adjustment Committee

Chairman

GLEN W. MAXON
Maxon Construction Co., Inc.
Dayton, Ohio

ARTHUR S. HORNER
A. S. Horner Construction Co.
Denver, Colorado

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

F. W. HELDENFELS, Jr.
Heldenfels Brothers
Corpus Christi, Texas

WILLIAM MUIRHEAD
Wm. Muirhead Construction Co.
Durham, North Carolina

C. P. STREET
McDevitt & Street Co.
Charlotte, North Carolina

W. MURRAY WERNER
The Werner Co.
Shreveport, Louisiana

Apprenticeship Committee

Chairman
FRED FISHER
 Fisher Construction Co.
 Houston, Texas

FRANK F. BURROWS
 Williams & Burrows, Inc.
 Burlingame, California

D. H. COWDIN
 Cowdin Brothers
 Dallas, Texas

HAL S. CRAIN
 Crain & Denbo, Inc.
 Durham, North Carolina

HARRISON W. FOX
 Fox & Fox
 St. Petersburg, Florida

IRA H. HARDIN
 Ira H. Hardin Co.
 Atlanta, Georgia

JAMES B. KENNEY
 James B. Kenney, Inc.
 Denver, Colorado

FREDERIC G. KRAPF
 Wilmington, Delaware

ALVAH LIBBEY
 Libbey & Libby
 Minneapolis, Minnesota

DORT PETTIS
 Walter L. Couse & Co.
 Detroit, Michigan

R. M. ROBSON
 Portland, Oregon

WALTER W. SEABRIGHT
 Seabright Construction Co.
 Wheeling, West Virginia

CLYDE C. YOUNGLOVE
 W. A. Klinger Co.
 Sioux City, Iowa

Contract Forms and Specifications Committee

(Coordinating Committee)

Chairman
GEO. H. ATKINSON
 Guy F. Atkinson Co.
 So. San Francisco, California

Vice-Chairman
J. A. HENDERSON
 United Construction Co.
 Winona, Minnesota

F. H. CARLSON
 Fred Carlson Co.
 Decorah, Iowa

JAMES W. CAWDREY
 Cawdrey & Vemo
 Seattle, Washington

EDWARD P. COBLENTZ
 McLean Contracting Co.
 Baltimore, Maryland

WALLACE B. CURTIS
 Morrison-Knudsen Co.
 Boise, Idaho

ROBERT W. LONG
 Long Construction Co.
 Kansas City, Missouri

GEO. C. LOORZ
 Stolte, Inc.
 Oakland, California

F. S. OLDY
 F. S. Oldt Co.
 Dallas, Texas

LEO P. RICHARDSON
 W. E. Wood Co.
 Detroit, Michigan

E. J. WHEELER
 Frank Messer & Sons, Inc.
 Cincinnati, Ohio

(Sub-Committees)

PRIVATE ARCHITECTURAL CONTRACT FORMS

Chairman
E. J. WHEELER
 Frank Messer & Sons, Inc.
 Cincinnati, Ohio

W. C. ENGLISH
 English Constr. Co.
 Alta Vista, Virginia

C. R. JUSTI
 Griffin Constr. Co.
 Atlanta, Georgia

CARL W. OLSON
 Olson Construction Co.
 Lincoln, Nebraska

JOHN H. SELLEN
 John H. Sellen Constr. Co.
 Seattle, Washington

BERT O. SUMMERS
 Erbentraut & Summers
 San Francisco, California

JOHN T. TESTMAN
 Albuquerque, N. Mexico

CLYDE E. YATER
 Shelby Constr. Co., Inc.
 Shelbyville, Indiana

PRIVATE ENGINEERING CONTRACT FORMS

Chairman
WALLACE B. CURTIS
 Morrison-Knudsen Co.
 Boise, Idaho

ELLSWORTH APPEL
 Conduit Contr. Co., Inc.
 St. Louis, Missouri

ALBERT D. BLAKESLEE
 C. W. Blakeslee & Sons, Inc.
 New Haven, Connecticut

EDWARD P. COBLENTZ
 McLean Contracting Co.
 Baltimore, Maryland

D. B. FEGLES
 Fegles Constr. Co., Ltd.
 Minneapolis, Minnesota

GEORGE NILSON
 Nilson-Smith Constr. Co.
 Great Falls, Montana

F. S. OLDY
 F. S. Oldt Co.
 Dallas, Texas

HOWARD H. STURDY
 Dravo Corp.
 Pittsburgh, Pennsylvania

F. B. WINSTON
 Winston Brothers Co.
 Minneapolis, Minnesota

STANDARD GOVERNMENT CONSTRUCTION CONTRACT

Chairman
J. A. HENDERSON
 United Construction Co.
 Winona, Minnesota

GEO. H. ATKINSON
 Guy F. Atkinson Co.
 So. San Francisco, Calif.

TYREE L. BELL
 Austin Road Co.
 Dallas, Texas

EDWARD P. COBLENTZ
 McLean Contracting Co.
 Baltimore, Maryland

C. E. COOKE
 Cooke Contracting Co.
 Detroit, Michigan

MORRIS E. DEWITT
 Porter-DeWitt Construction Co.
 Poplar Bluff, Missouri

BEN P. GRIFFITH
 Griffith Co.
 Los Angeles, California

CARL W. OLSON
 Olson Construction Co.
 Lincoln, Nebraska

FRANCIS M. TOMPKINS
 Chas. H. Tompkins Co.
 Washington, D. C.

(Task Units)

BUILDING SPECIFICATIONS

Chairman
ROBERT W. LONG
 Long Construction Co.
 Kansas City, Missouri

A. E. BUDELL
 Industrial Engineering Co.
 New York, New York

JAMES W. CAWDREY
 Cawdrey & Vemo
 Seattle, Washington

M. R. HARRISON, JR.
 M. R. Harrison Construction Corp.
 Miami, Florida

DONALD E. REED
Stanton-Reed Co.
Los Angeles, California

HIGHWAY SPECIFICATIONS

Chairman

F. H. CARLSON
Fred Carlson Co., Inc.
Decorah, Iowa

B. B. ARMSTRONG
Armstrong & Armstrong
Roswell, New Mexico

C. E. COOKE
Cooke Contracting Co.
Detroit, Michigan

HENRY KUCKENBERG
Kuckenberg Constr. Co.
Portland, Oregon

E. W. MENEFFEE
W. J. Menefee Construction Co.
Sedalia, Missouri

WARDNER G. SCOTT
W. A. Lynn Construction Co.
Lincoln, Nebraska

NELLO L. TEER, JR.
Nello L. Teer Co.
Durham, North Carolina

RECLAMATION SPECIFICATIONS

Chairman

GEO. C. LOORZ
Stolte, Inc.
Oakland, California

WALLACE B. CURTIS
Morrison-Knudsen Co.
Boise, Idaho

J. E. DAVIDSON
Massman Constr. Co.
Kansas City, Missouri

Chairman

J. A. THOMPSON
J. A. Thompson and Son
Inglewood, California

Vice-Chairman

J. RUTLEDGE HILL
Gifford-Hill & Co.
Dallas, Texas

Chairman

W. L. SHARPE
W. L. Sharpe Contracting Co.
Memphis, Tennessee

Vice-Chairman

WALTER H. ERICSSON
Henry Ericsson Co.
Chicago, Illinois

WM. H. DeBUTTS
C. F. Lytle Co.
Sioux City, Iowa

J. A. HENDERSON
United Construction Co.
Winona, Minnesota

MARSHALL B. JONES
Western Contr. Corp.
Sioux City, Iowa

CORPS OF ENGINEERS SPECIFICATIONS

Chairman

J. A. HENDERSON
United Construction Co.
Winona, Minnesota

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

WM. H. DeBUTTS
C. F. Lytle Co.
Sioux City, Iowa

MORRIS E. DeWITT
Porter-DeWitt Construction Co.
Poplar Bluff, Missouri

A. GUIBET
McWilliams Dredging Co.
New Orleans, Louisiana

MARSHALL B. JONES
Western Contr. Corp.
Sioux City, Iowa

JAMES B. KENNEY
James B. Kenney, Inc.
Denver, Colorado

H. EARL PARKER
H. Earl Parker, Inc.
Marysville, California

FRANCIS M. TOMPKINS
Chas. H. Tompkins Co.
Washington, D. C.

BUREAU OF YARDS AND DOCKS SPECIFICATIONS

Chairman

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

A. GUIBET
McWilliams Dredging Co.
New Orleans, Louisiana

JOHN MacLEOD
Macco Corp.
Paramount, California

C. L. OHL
Maxon Constr. Co., Inc.
Dayton, Ohio

MUNICIPAL SPECIFICATIONS

Chairman

F. S. OLD
F. S. Oldt Co.
Dallas, Texas

RAY BINFORD
Burt & Binford
Hutchinson, Kansas

BEN C. GERWICK
Ben C. Gerwick, Inc.
San Francisco, California

JOSEPH E. LATTA
J. E. Latta Constr. Co.
St. Louis, Missouri

H. C. LIPPINCOTT
Wilkins Constr. Co.
Pittsburgh, Pennsylvania

H. P. PHELPS
Phelps-Drake Co.
Minneapolis, Minnesota

J. GILBERT STEIN
Stein Construction Co.
Chattanooga, Tennessee

Cooperative Construction Bureau Committee

Chairman

J. A. THOMPSON
J. A. Thompson and Son
Inglewood, California

Vice-Chairman

J. RUTLEDGE HILL
Gifford-Hill & Co.
Dallas, Texas

GEORGE M. EADY
George M. Eady Co.
Louisville, Kentucky

E. P. FORRESTEL
Cold Spring Construction Co.
Akron, New York

R. D. HOUGHTON
Rice Pump & Machine Co.
Grafton, Wisconsin
(Chairman, Contractors' Pump Bureau)

C. V. ISBELL
Isbell Construction Co.
Reno, Nevada

R. W. SMITH
T. L. Smith Co.
Milwaukee, Wisconsin
(Chairman, Mixer Manufacturers' Bureau)

Endorsements Committee

J. W. CAWDREY
Cawdrey & Vemo
Seattle, Washington

H. V. COLLINS
Providence, Rhode Island

W. R. HUGHES, JR.
Hughes-Foulkrod Co.
Philadelphia, Pennsylvania

GEORGE R. JOHNSON
Richard Johnson Co.
Hartford, Connecticut

GEORGE W. KANE
Roxboro, North Carolina

JOSEPH E. LATTA
J. E. Latta Construction Co.
St. Louis, Missouri

CLIFF MORTENSEN
Nelse Mortensen & Co., Inc.
Seattle, Washington

JOSEPH J. ORR
John B. Orr, Inc.
Miami, Florida

(Endorsements Committee continued on next page)

A.G.C. DIRECTORY

(Endorsements Committee—continued)

C. R. RALPH
Kaw Paving Co., Inc.
Topeka, Kansas

CHARLES H. RICHERT
J. A. Utley Co.
Detroit, Michigan

JOHN K. RUFF
John K. Ruff Co.
Baltimore, Maryland

J. A. THOMPSON
J. A. Thompson and Son
Inglewood, California

Equipment Expense Committee

Chairman

F. W. PARROTT
C. F. Lytle Co.
Sioux City, Iowa

J. W. CAWDREY
Cawdre & Vemo
Seattle, Washington

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

J. S. GREGORY
Tidewater Construction Corp.
Norfolk, Virginia

THOMAS H. JOYCE, Jr.
Joyce Bros. Contracting Co.
Springfield, Illinois

JOHN A. KIER
W. E. Kier Construction Co.
San Diego, California

A. D. McCOMBS
John F. Casey Co.
Pittsburgh, Pennsylvania

HOMER A. SCOTT
Peter Kiewit Sons' Co.
Sheridan, Wyoming

L. D. SINCLAIR
Foley Bros., Inc.
St. Paul, Minnesota

HOWARD H. STURDY
Dravo Corp.
Pittsburgh, Pennsylvania

E. G. WERNENTIN
C. F. Lytle Co. and Green Constr. Co.
Des Moines, Iowa

Ethics and Trade Practices Committee

Chairman

FRED I. ROWE
W. L. Johnson Constr. Co. & Associates
Columbus, Ohio

F. W. HELDENFELS, Jr.
Heldenfels Bros.
Corpus Christi, Texas

Vice-Chairman

LESTER C. ROGERS
Bates & Rogers Construction Corp.
Chicago, Illinois

W. MURRAY WERNER
The Werner Co.
Shreveport, Louisiana

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

Finance Committee

Chairman

GLEN W. MAXON
Maxon Constr. Co., Inc.
Dayton, Ohio

Vice-Chairman

WALTER L. COUSE
Walter L. Couse & Co.
Detroit, Michigan

GEO. H. ATKINSON
Guy F. Atkinson Co.
So. San Francisco, California

P. D. CHRISTIAN, JR.
Christian & Bell Co.
Atlanta, Georgia

HAL C. DYER
Dallas, Texas

D. A. HARMON
Harmon Construction Co.
Oklahoma City, Oklahoma

F. W. HELDENFELS, Jr.
Heldenfels Bros.
Corpus Christi, Texas

GEORGE HELLER
Johnson, Drake & Piper, Inc.
Minneapolis, Minnesota

JOHN MACLEOD
Macco Corp.
Paramount, California

WILLIAM MUIRHEAD
Wm. Muirhead Construction Co.
Durham, North Carolina

F. W. PARROTT
C. F. Lytle Co.
Sioux City, Iowa

FRED I. ROWE
W. L. Johnson Constr. Co. & Associates
Columbus, Ohio

P. M. THORNTON
Thornton Construction Co.
Hancock, Michigan

H. C. TURNER, Jr.
Turner Construction Co.
New York, New York

JOHN A. VOLPE
Volpe Construction Co.
Malden, Massachusetts

E. J. WHEELER
Frank Messer & Sons, Inc.
Cincinnati, Ohio

MARK K. WILSON, Jr.
Mark K. Wilson Co.
Chattanooga, Tennessee

J. R. WININGER
Warren Northwest, Inc.
Portland, Oregon

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

Governing Provisions Committee

Chairman

M. W. WATSON
Topeka, Kansas

C. P. STREET
McDevitt & Street Co.
Charlotte, North Carolina

Vice-Chairman

ADOLPH TEICHERT, Jr.
A. Teichert & Son, Inc.
Sacramento, California

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

F. W. MAST
Jens Olesen & Sons Construction Co.
Waterloo, Iowa

Insurance and Bonds Committee

Chairman

ADOLPH TEICHERT, JR.
A. Teichert & Son, Inc.
Sacramento, California

Vice-Chairman

C. T. NAUGLE
Naugle-Leck, Inc.
Minneapolis, Minnesota

R. P. BAYARD
Johnson, Drake & Piper, Inc.
New York, New York

C. B. FORD
Forcum-James Co.
Dyersburg, Tennessee

IRA H. HARDIN
Ira H. Hardin Co.
Atlanta, Georgia

WM. H. JUNGCLAUS
Wm. P. Jungclaus Co.
Indianapolis, Indiana

THOMAS S. KEEFER
E. H. Keefer & Son
Philadelphia, Pennsylvania

JOHN R. LATHRAM
Sullivan, Long & Hagerty
Birmingham, Alabama

J. L. MATERI
Northwestern Engineering Co.
Rapid City, South Dakota

DAN J. MOONEY
Cahill-Mooney Construction Co.
Butte, Montana

ROBERT E. O'CONNOR
J. C. O'Connor & Sons, Inc.
Ft. Wayne, Indiana

B. F. PARROTT
B. F. Parrott & Co., Inc.
Roanoke, Virginia

PARKER H. RICE
Manchester Sand & Gravel Co.
Manchester, N. H.

WAYNE C. SUTTON
Washington Asphalt Co.
Seattle, Washington

PAUL VERNON
Vernon Bros. Co.
Boise, Idaho

WM. H. WELDON
The Weldon Contracting Co.
Westfield, New Jersey

W. G. WETMORE
Jackson, Mississippi

Labor Committee

Chairman

ARTHUR H. WELLS
John Griffiths & Son Construction Co.
Chicago, Illinois

Vice-Chairman

LESTER C. ROGERS
Bates & Rogers Construction Corp.
Chicago, Illinois

Policy and Negotiations Sub-Committee

LESTER C. ROGERS
ARTHUR H. WELLS
ROY E. PICKETT
CARL B. JANSEN
MORRIS E. DeWITT

Building Contractors

FRANK F. BURROWS
Williams & Burrows, Inc.
Burlingame, California

FRED FISHER
Fisher Construction Co.
Houston, Texas

W. A. KLINGER
W. A. Klinger Company
Sioux City, Iowa

CHARLES H. LEMBKE
Lembke Construction Co., Inc.
Albuquerque, New Mexico

ROY E. PICKETT
Walbridge, Aldinger Co.
Detroit, Michigan

Chairman

FRANK W. ROBERTSON
Robertson-Henry Co.
Huntington, West Virginia

Vice-Chairman

R. A. SMITH
P. J. Walker Co.
Los Angeles, California

FRANK J. ROONEY
Frank J. Rooney, Inc.
Miami, Florida

F. L. SHACKELFORD
Potter & Shackelford Construction Co., Inc.
Greenville, South Carolina

JOHN A. VOLPE
Volpe Construction Co.
Malden, Massachusetts

Highway Contractors

LEET M. DENTON
Denton Construction Co.
Detroit, Michigan

MORRIS E. DeWITT
Porter-DeWitt Construction Co.
Poplar Bluff, Missouri

OLE HANSEN
Ole Hansen & Sons, Inc.
Pleasantville, New Jersey

M. B. KILLIAN
M. B. Killian & Co.
San Antonio, Texas

DAN J. MOONEY
Cahill-Mooney Construction Co.
Butte, Montana

BLAIR A. RIETH
Rieth-Riley Construction Co.
Goshen, Indiana

FRED I. ROWE
W. L. Johnson Construction Co.
Columbus, Ohio

M. W. WATSON
Topeka, Kansas

Heavy Construction and Railroad Contractors

GEO. H. ATKINSON
Guy F. Atkinson Co.
So. San Francisco, California

DAN G. BELL
Peter Kiewit Sons' Co.
Denver, Colorado

J. P. GIBBONS
Gibbons & Reed Co.
Salt Lake City, Utah

GEORGE HELLER
Johnson, Drake & Piper, Inc.
Minneapolis, Minnesota

CARL B. JANSEN
Dravo Corp.
Pittsburgh, Pennsylvania

JOHN MacLEOD
Macco Corp.
Paramount, California

C. L. OHL
Maxon Construction Co., Inc.
Dayton, Ohio

E. P. PALMER
Senior and Palmer, Inc.
New York, New York

Legislative Committee

Central Committee

A. N. GOLDBERG
A. N. Goldberg, Inc.
New Orleans, Louisiana

CHAS. L. HARNEY
Chas. L. Harney, Inc.
San Francisco, California

GEORGE R. JOHNSON
Richard Johnson Co.
Hartford, Connecticut

JOSEPH J. ORR
John B. Orr, Inc.
Miami, Florida

(Legislative Committee continued on next page)

A.G.C. DIRECTORY

(Legislative Committee—continued)

F. W. PARROTT
C. F. Lytle Co.
Sioux City, Iowa

W. M. H. WELDON
The Weldon Contr. Co.
Westfield, New Jersey

E. J. WHEELER
Frank Messer & Sons, Inc.
Cincinnati, Ohio

General Committee

W. J. R. DUNN
Dunn Constr. Co., Inc.
Birmingham, Alabama

R. H. STOCK
Stock & Grove, Inc.
Anchorage, Alaska

L. G. VINSON
Vinson Construction Co.
Phoenix, Arizona

M. O. BRANTON
M. O. Branton Construction Co.
Little Rock, Arkansas

G. H. PHIPPS
Platt Rogers Inc.
Denver, Colorado

FREDERIC G. KRAPF
Wilmington, Delaware

B. T. ROME
The Geo. Hyman Constr. Co.
Washington, D. C.

M. W. NEWBANKS
Merrill Newbanks Co.
Atlanta, Georgia

C. B. LAUCH
C. B. Lauch Constr. Co.
Boise, Idaho

J. G. GALLAGHER
Gallagher Asphalt Co., Inc.
Thornton, Illinois

MIKE RYAN
Ryan Constr. Corp.
Evansville, Indiana

C. E. MAXWELL
The Maxwell Bridge Co.
Columbus, Kansas

J. R. BREEDEN
Lyons & Breeden
Madisonville, Kentucky

W. M. J. SALTER
Stewart & Williams, Inc.
Augusta, Maine

EARL C. ROBERTSON
The Cumberland Construction Co.
Cumberland, Maryland

CHARLES B. SOLOMON
Geo. B. H. Macomber Co., Inc.
Boston, Massachusetts

L. A. DAVIDSON
Lansing, Michigan

GEO. F. COOK
Geo. F. Cook Constr. Co.
Minneapolis, Minnesota

W. W. HOWIE
Howie Constr. Co.
Jackson, Mississippi

RAY GAST
Gast & Ray Constr. Co.
Louisiana, Missouri

EDWARD M. O'NEIL
The O'Neil Constr. Co.
Havre, Montana

WARDNER SCOTT
W. A. Lynn Constr. Co.
Lincoln, Nebraska

EARL E. GAMES
Reno, Nevada

FRANK W. WHITCOMB
Frank W. Whitcomb Constr. Corp.
North Walpole, N. H.

MARSHALL J. WYLIE
Wylie Bros.
Albuquerque, N. Mexico

H. G. DIXON
Johnson, Drake & Piper, Inc.
New York, New York

A. C. JOHNSON
Meinecke-Johnson Co.
 Fargo, North Dakota

JOHN C. MCCONNELL
McConnell Constr. Co.
Oklahoma City, Oklahoma

H. G. PALMBERG
Astoria, Oregon

FRANK O. PATTERSON
Monongahela, Penna.

FREDERICK E. BOWERMAN
Bowerman Brothers
Providence, Rhode Island

C. P. BALLENGER, JR.
Ballenger Paving Co.
Greenville, S. Carolina

P. A. BRADBURY
P. A. Bradbury Construction Co.
Aberdeen, South Dakota

GEORGE D. WIBLE
S. & W. Constr. Co.
Memphis, Tennessee

J. RUTLEDGE HILL
Gifford-Hill Co.
Dallas, Texas

WALTER CHRISTIANSEN
Christiansen Brothers
Salt Lake City, Utah

B. F. PARROTT
B. F. Parrott & Co., Inc.
Roanoke, Virginia

T. H. YUELL
Diesel Oil Sales Co.
Seattle, Washington

H. F. MIELENZ
Kroening Engr. Corp.
Milwaukee, Wisconsin

VERN KNISELY
Kniseley-Moore Co.
Douglas, Wyoming

Market Development Committee

Chairman

FRED J. EARLY, JR.
Fred J. Early, Jr., Co., Inc.
San Francisco, California

Vice-Chairman

LEET M. DENTON
Denton Constr. Co.
Detroit, Michigan

W. E. ABBITT
W. A. Abbitt Co.
Charleston, West Virginia

H. B. BASS
D. C. Bass & Sons Constr. Co.
Enid, Oklahoma

HERMAN BROWN
Brown & Root, Inc.
Austin, Texas

C. L. DAVIS
Miller-Davis Co.
Kalamazoo, Michigan

A. J. GIARDINI
Associated Constr. Co.
Hartford, Connecticut

V. B. HIGGINS
V. B. Higgins Co.
Greensboro, North Carolina

C. C. HINCHBERGER
Hinchberger Constr. Co.
Corpus Christi, Texas

H. L. HOAK
Hoak Constr. Co.
Des Moines, Iowa

BEN M. HOGAN
Ben M. Hogan & Co.
Little Rock, Arkansas

A. L. JACKSON
A. L. Jackson Co.
Chicago, Illinois

E. O. JOHNSON
Johnson Bros. Construction Co.
Salina, Kansas

F. H. MARTELL
F. H. Martell Co., Inc.
Washington, D. C.

J. F. NICOLIN
Hays & Nicoulin, Inc.
Louisville, Kentucky

DAVID A. OLSON
Olson & Hart
Denver, Colorado

JOSEPH M. POWERS
T. F. Powers Construction Co.
 Fargo, North Dakota

HOMER A. SCOTT
Peter Kiewit Sons' Co.
Sheridan, Wyoming

MOSES SLOTNIK
J. Slotnik Co.
Boston, Massachusetts

R. H. STOCK
Stock & Grove, Inc.
Anchorage, Alaska

W. J. STOREN, JR.
W. J. Storen Co.
Detroit, Michigan

R. W. WEITZ
The Weitz Co., Inc.
Des Moines, Iowa

Membership Committee**General Chairman**

W. MURRAY WERNER
The Werner Co.
Shreveport, Louisiana

General Vice-Chairman (West)

JAMES W. CAWDREY
Cawdrey & Vemo
Seattle, Washington

General Vice-Chairman (East)

PARKER H. RICE
Manchester Sand & Gravel Co.
Manchester, New Hampshire

Vice-Chairmen**District 1**

A. S. MACDONALD
Strong & Macdonald, Inc.
Tacoma, Washington

District 2

J. A. THOMPSON
J. A. Thompson and Son
Inglewood, California

District 3

N. R. PETRY
N. G. Petry Constr. Co.
Denver, Colorado

District 4

HAL C. DYER
Dallas, Texas

District 5

CARL W. OLSON
Olson Construction Co.
Lincoln, Nebraska

District 6

C. T. NAUGLE
Naugle-Leck, Inc.
Minneapolis, Minnesota

District 7

PERCY F. LOISELLE
Triangle Constr. Co.
Kankakee, Illinois

District 8

V. N. HOLDERMAN
V. N. Holderman & Sons, Inc.
Columbus, Ohio

District 9

R. R. DAWSON
R. R. Dawson Bridge Co.
Bloomfield, Kentucky

District 10

J. L. EWELL
Ewell Engineering & Contracting Co.
Lakeland, Florida

District 11

THOMAS S. KEEFER
E. H. Keefer & Son
Philadelphia, Pennsylvania

District 12

PARKER H. RICE
Manchester Sand & Gravel Co.
Manchester, New Hampshire

NOTE: All of the Association's elected directors are members of the Membership Committee.

Progress Committee**WALTER L. COUSE**

Walter L. Couse & Co.
Detroit, Michigan

GEORGE HELLER

Johnson, Drake & Piper, Inc.
Minneapolis, Minnesota

JOHN MacLEOD

Macco Corp.
Paramount, California

E. J. MAUPIN, Jr.
Dodge Construction, Inc.
Fallon, Nevada

FRED I. ROWE

W. L. Johnson Co.
Columbus, Ohio

ADOLPH TEICHERT, Jr.

A. Teichert & Son, Inc.
Sacramento, California

H. C. TURNER, Jr.
Turner Construction Co.
New York, New York

Public Relations Committee**D. A. HARMON**

Harmon Construction Co.
Oklahoma City, Oklahoma

F. W. HELDENFELS, Jr.

Heldenfels Bros.
Corpus Christi, Texas

GEO. C. LOORZ

Stolte, Inc.
Oakland, California

CLIFF MORTENSEN

Nelse Mortensen & Co.
Seattle, Washington

LEO P. RICHARDSON

W. E. Wood Company
Detroit, Michigan

WALTER STEINWALD

Colorado Constructors, Inc.
Denver, Colorado

C. P. STREET

McDevitt & Street Co.
Charlotte, North Carolina

HOWARD T. TELLEPSEN

Tellepsen Co.
Houston, Texas

MARK K. WILSON, Jr.

Mark K. Wilson Co.
Chattanooga, Tennessee

SAMUEL H. ZITTER

Platt Contracting Co.
Boston, Massachusetts

Quantity Survey Committee**THOMAS F. GILBANE**

Gilbane Building Co., Inc.
Providence, Rhode Island

W. C. TAIT

W. C. Tait Co.
San Francisco, California

Chairman

F. W. PARROTT
C. F. Lytle Co.
Sioux City, Iowa

Vice-Chairman

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

W. S. BELLOWES

W. S. Bellows Construction Corp.
Houston, Texas

Chairman

JOHN MacLEOD
Macco Corp.
Paramount, California

Vice-Chairman

GEORGE C. KOSS
Koss Construction Co.
Des Moines, Iowa

MORRIS E. DEWITT

Porter-DeWitt Construction Co.
Poplar Bluff, Missouri

IRA H. HARDIN

Ira H. Hardin Co.
Atlanta, Georgia

Chairman

H. W. SCHMIDT
Universal Construction Co., Inc.
Milwaukee, Wisconsin

A.G.C. DIRECTORY

A.E.D.—A.G.C. Joint Cooperative Committee

ASSOCIATED EQUIPMENT DISTRIBUTORS MEMBERS

Co-Chairman

P. A. DUFFORD
International Equipment Co.
Boise, Idaho

Co-Secretary

P. D. HERMANN
Associated Equipment Distributors
360 N. Michigan Ave.
Chicago 1, Illinois

A. ASHLEY CARROLL
Eastern Equipment Sales
Springfield, Massachusetts

F. J. FITZPATRICK
Parker-Danner Co.
Boston, Massachusetts

H. J. HUSH
Griffin Equipment Corp.
New York, New York

MARSHALL JOST
Equipment Corporation of America
Chicago, Illinois

W. H. McILHANY
McIlhany Equipment Co.
Roanoke, Virginia

S. J. OECHSLE
Metalweld Inc.
Philadelphia, Pennsylvania

R. E. WITTHAUER
Rosholt Equipment Co.
Minneapolis, Minnesota

A.G.C. MEMBERS

Co-Chairman

C. E. COOKE
Cooke Contracting Co.
Detroit, Michigan

Co-Secretary

C. S. EMBREY
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

E. G. HOEPPNER
Hoeppner-Bartlett Co.
Eau Claire, Wisconsin

A. S. MACDONALD
Strong & Macdonald, Inc.
Tacoma, Washington

J. L. MATERI
Northwestern Engr. Co.
Rapid City, South Dakota

FRED W. SHAPPERT, JR.
Shappert Engineering Co.
Belvidere, Illinois

R. A. SMITH
P. J. Walker Co.
Los Angeles, California

P. M. THORNTON
Thornton Constr. Co.
Hancock, Michigan

F. B. WINSTON
Winston Brothers Co.
Minneapolis, Minnesota

C.I.M.A.—A.G.C. Joint Committee

CONSTRUCTION INDUSTRY MANUFACTURERS ASSOCIATION MEMBERS

Co-Chairman

W. B. GREENE
Barber-Greene Co.
Aurora, Illinois

Co-Secretary

HAROLD F. HESS
Executive Vice-President, C.I.M.A.
135 S. La Salle Street,
Chicago 3, Illinois

EVERETT F. ARMINGTON
Euclid Road Machinery Co.
Cleveland, Ohio

J. T. CALLAWAY
The Goodyear Tire & Rubber Co., Inc.
Chicago, Illinois

CARLETON R. DODGE
Northwest Engineering Co.
Chicago, Illinois

E. B. HILL
Gar Wood Industries, Inc.
Wayne, Michigan

RAY McLEAN
Jaeger Machine Co.
Columbus, Ohio

H. T. REISHUS
International Harvester Co.
Chicago, Illinois

RALPH K. STILES
Austin-Western Co.
Aurora, Illinois

A.G.C. MEMBERS

Co-Chairman

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

Co-Secretary

C. S. EMBREY
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

W. D. AMIS
Amis Construction Co.
Oklahoma City, Oklahoma

LEET M. DENTON
Denton Construction Co.
Detroit, Michigan

GEORGE C. KOSS
Koss Construction Co.
Des Moines, Iowa

JOHN MACLEOD
Macco Corp.
Paramount, California

CARL E. NELSON
Carl E. Nelson Co.
Logan, Utah

L. D. SINCLAIR
Foley Brothers
St. Paul, Minnesota

LYMAN D. WILBUR
Morrison-Knudsen Co., Inc.
Boise, Idaho

A.I.A.—A.G.C. Joint Cooperative Committee

AMERICAN INSTITUTE OF ARCHITECTS MEMBERS

Co-Chairman

MAX H. FOLEY
Voorhees, Walker, Foley & Smith
New York, New York

Co-Secretary

THEODORE I. COE
American Institute of Architects
1741 New York Avenue, N. W.
Washington 6, D. C.

EDWARD G. CONRAD
Conrad, Hays, Simpson and Ruth
Cleveland, Ohio

EARL T. HEITSCHMIDT
Earl Heitschmidt and Charles O. Matcham
Los Angeles, California

WILLIAM STANLEY PARKER
Boston, Massachusetts

HARRY B. TOUR
T.V.A.
Knoxville, Tennessee

A.G.C. MEMBERS

Co-Chairman

WALTER L. COUSE
Walter L. Couse & Co.
Detroit, Michigan

Co-Secretary

WELTON A. SNOW
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

A. L. ATHERTON
Atherton Construction Co.
Seattle, Washington

(A.I.A.-A.G.C. Joint Cooperative Committee—continued)

ELLIS W. BARKER
Ellis W. Barker Co.
Salt Lake City, Utah

WILLIAM MUIRHEAD
Wm. Muirhead Construction Co.
Durham, North Carolina

E. J. WHEELER
Frank Messer & Sons, Inc.
Cincinnati, Ohio

A.S.C.E.—A.G.C. Joint Cooperative Committee

AMERICAN SOCIETY OF CIVIL ENGINEERS
MEMBERS
Co-Chairman

KIRBY SMITH
Raymond Concrete Pile Co.
New York, New York

Co-Secretary

CARL E. BEAM
American Society of Civil Engineers
33 West 39th Street
New York 18, New York

GAIL A. HATHAWAY
Office of Chief of Engineers, Department
of the Army
Washington, D. C.

EUGENE LELAND MACDONALD
Parsons, Brinckerhoff, Hall, and Macdonald
New York, New York

A.G.C. MEMBERS

Co-Chairman

D. W. WINKELMAN
D. W. Winkelman Co.
Syracuse, New York

Co-Secretary

ARCHIE N. CARTER
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

BEN C. GERWICK
Ben C. Gerwick, Inc.
San Francisco, California

LESTER C. ROGERS
Bates & Rogers Construction Corp.
Chicago, Illinois

LYMAN D. WILBUR
Morrison-Knudsen Co., Inc.
Boise, Idaho

H. B. ZACHRY
H. B. Zachry Co.
San Antonio, Texas

A.A.S.H.O.—A.G.C. Joint Cooperative Committee

AMERICAN ASSOCIATION OF STATE HIGHWAY
OFFICIALS MEMBERS
Co-Chairman

C. M. HATHAWAY
Department of Public Works and Buildings
Springfield, Illinois

Co-Secretary

HAL H. HALE
American Association of State Highway
Officials
917 National Press Bldg.
Washington 4, D. C.

J. A. ANDERSON
Virginia State Department of Highways
Richmond, Virginia

J. R. BROMLEY
Wyoming State Highway Commission
Cheyenne, Wyoming

G. ALBERT HILL
Connecticut State Highway Department
Hartford, Connecticut

G. T. MCCOY
Division of Highways
Sacramento, California
H. D. MILLS
Nevada Department of Highways
Carson City, Nevada

W. C. PETERSON
Bureau of Public Roads
Washington, D. C.
EMMONS L. ROETTIGER
State Highway Commission
Madison, Wisconsin

A.G.C. MEMBERS

Co-Chairman

GEORGE C. KOSS
Koss Construction Co.
Des Moines, Iowa

Co-Secretary

ARCHIE N. CARTER
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

N. K. DICKERSON, Jr.
Dickerson, Inc.
Monroe, North Carolina

E. O. EARL
San Xavier Rock & Sand Co.
Tucson, Arizona

HYLAND P. GEORGE
George & Lynch Co.
Wilmington, Delaware

F. W. HELDENFELS, Jr.
Heldenfels Bros.
Corpus Christi, Texas

THOMAS H. JOYCE, Jr.
Joyce Brothers Contracting Co.
Springfield, Illinois

S. R. OKES
Okes Construction Co.
St. Paul, Minnesota

J. R. WININGER
Warren Northwest, Inc.
Portland, Oregon

N.A.S.A.O.—A.G.C. Joint Cooperative Committee

NATIONAL ASSOCIATION OF STATE AVIATION
OFFICIALS MEMBERS
Co-Chairman

CLAUDE B. FRIDAY
New York State Bureau of Aviation
Albany, New York

Co-Secretary

COL. A. B. McMULLEN
Executive Secretary
National Association of State Aviation
Officials
1101 Vermont Avenue
Washington 5, D. C.

CHARLES L. BEARD
Alabama Department of Aeronautics
Montgomery, Alabama

NORMAN C. BIRD
Illinois Department of Aeronautics
Springfield, Illinois

WILLIAM C. HILL
Oregon State Board of Aeronautics
Salem, Oregon

THOMAS K. JORDAN
Wisconsin State Aeronautics Commission
Madison, Wisconsin

JOHN W. MYERS
Louisiana Aeronautics Division
Baton Rouge, Louisiana

GEORGE PRIDE
West Virginia State Aeronautics
Commission
Charleston, West Virginia

JOSEPH P. WALLIS
Massachusetts Aeronautics Commission
East Boston, Massachusetts

A.G.C. MEMBERS

Co-Chairman

MAX C. HARRISON
Harrison Construction Co.
Pittsburgh, Pennsylvania

Co-Secretary

ARCHIE N. CARTER
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

W. D. AMIS
Amis Construction Co.
Oklahoma City, Oklahoma

D. L. CHENEY
S. Birch & Sons Construction Co.
Seattle, Washington

A.G.C. DIRECTORY

(N.A.S.A.O.-A.G.C. Joint Cooperative Committee—continued)

C. W. CUNNINGHAM
Condon-Cunningham Co.
Omaha, Nebraska

L. A. DAVIDSON
Lansing, Michigan

M. B. KILLIAN
M. B. Killian & Co.
San Antonio, Texas

E. J. MAUPIN, Jr.
Dodge Constr. Inc.
Fallon, Nevada

J. WARREN SHOEMAKER
Warren Bros. Roads Co.
Cambridge, Massachusetts

LEO VECELLIO
Vecellio & Grogan
Beckley, West Virginia

S.A.A.—A.G.C. Joint Cooperative Committee

SURETY ASSOCIATION OF AMERICA MEMBERS

Co-Chairman

E. MILTON SMITH
Fidelity & Deposit Co. of Maryland
Baltimore, Maryland

Co-Secretary

ELMER C. ANDERSON
The Surety Association of America
60 John Street
New York 38, New York

E. KEMP CATHCART
Maryland Casualty Co.
Baltimore, Maryland

C. C. CONLON
United States Fidelity & Guaranty Co.
Baltimore, Maryland

J. P. HACKER
Standard Accident Insurance Co.
Detroit, Michigan

C. A. KEPPLER
National Surety Corp.
New York, New York

W. E. KRAFFT
Continental Casualty Co.
Chicago, Illinois

S. B. MILLER
Glens Falls Indemnity Co.
Glens Falls, New York

J. A. SWEARINGEN
Aetna Casualty & Surety Co.
Hartford, Connecticut

A.G.C. MEMBERS

Co-Chairman

GEORGE HELLER
Johnson, Drake & Piper, Inc.
Minneapolis, Minnesota

Co-Secretary

C. S. EMBREY
The Associated General Contractors
of America, Inc.
1227 Munsey Building
Washington 4, D. C.

EDWARD P. COBLENTZ
McLean Contracting Co.
Baltimore, Maryland

R. W. KIVELL
C. R. Meyer & Sons Co.
Oshkosh, Wisconsin

RAY E. RITCHIE
Boso & Ritchie, Inc.
Ravenswood, West Virginia

E. C. STEWART
Globe Construction Co.
Wichita, Kansas

HOWARD H. STURDY
Dravo Corp.
Pittsburgh, Pennsylvania

ADOLPH TEICHERT, Jr.
A. Teichert & Son, Inc.
Sacramento, California

WALTER TOEBE
Walter Toebe & Co.
Lansing, Michigan

A. of C.I.—A.G.C. Joint Cooperative Committee

(The study schedule of the Joint Cooperative Committee of the Associations of Casualty Insurers and the A.G.C. is undergoing revision, and personnel of the full committee was not available at the time of this printing. For later information, please address:

C. S. Embrey
The Associated General Contractors of America, Inc.
1227 Munsey Building
Washington 4, D. C.)

Producers' Council—A. G. C. Joint Cooperative Committee

PRODUCERS' COUNCIL MEMBERS

Co-Chairman

DAVID S. MILLER
The Kawneer Co.
Niles, Michigan

Co-Secretary

CHARLES M. MORTENSEN
The Producers' Council, Inc.
1001 15th Street, N. W.
Washington 5, D. C.

ARTHUR S. BREWER
National Fireproofing Corp.
Pittsburgh, Pennsylvania

SIDNEY J. CLARK

Otis Elevator Company
New York, New York

R. W. GASTMEYER
H. H. Robertson Co.
Pittsburgh, Pennsylvania

F. M. HAUSERMAN
The E. F. Hauserman Co.
Cleveland, Ohio

EDWARD P. LOCKART
American Structural Products Co.
Toledo, Ohio

A.G.C. MEMBERS

Co-Chairman

W. MURRAY WERNER
The Werner Co.
Shreveport, Louisiana

Co-Secretary

WELTON A. SNOW
The Associated General Contractors of
America, Inc.
1227 Munsey Building
Washington 4, D. C.

J. W. CAWDREY
Cawdrey & Vemo
Seattle, Washington

(Producers Council—A.G.C. Joint Cooperative Committee—continued)

F. L. SHACKELFORD
Potter & Shackelford Construction Co.
Greenville, South Carolina

R. A. SMITH
P. J. Walker Co.
Los Angeles, California

J. R. SWEITZER
J. S. Sweitzer & Son, Inc.
St. Paul, Minnesota

A. G. C. Representation with Other Groups

INDUSTRY

American Society for Testing Materials

Executive Committee

H. E. FOREMAN
Washington, D. C.

Committee C-1, Cement

HARRY J. KIRK
Washington, D. C.

Committee D-4, Road and Paving Materials

FRED SCHNEIDER
New Brunswick, New Jersey

Committee E-6, Methods of Testing Building Constructions

B. L. KNOWLES
Washington, D. C.

Standards Council

W. L. SHARPE
Memphis, Tennessee

Building Code and Construction Standards Correlating Committee

WALTER A. HUBBELL
Bridgeport, Connecticut

Sectional Committee on Administrative Requirements for Building Codes

GEORGE GRIFFIN
Princeton, New Jersey
W. A. SNOW
Washington, D. C. (Alternate)

Sectional Committee on Building Code Requirements for Iron and Steel

ROY BROWN
Cleveland, Ohio

Sectional Committee on Excavations and Foundations

E. P. PALMER
New York City
J. M. SPROUSE
Washington, D. C. (Alternate)

Sectional Committee B-19 on Safety Code for Compressed Air Machinery and Equipment

C. B. FREEMAN
Cleveland, Ohio
H. J. KIRK
Washington, D. C. (Alternate)

Sectional Committee on Loading Platforms

C. C. COGSWELL
Baltimore, Maryland

American Standards Association

Special Committee on Building Code Requirements for Reinforced Gypsum Concrete

B. H. ARMIGER
Detroit, Michigan

Sectional Committee of Gypsum Wallboard

EDWARD B. FRIEL
Washington, D. C.

Committee on Coordination of Dimensions of Building Materials and Equipment

ALFRED RHEINSTEIN
New York City
B. L. KNOWLES
Washington, D. C. (Alternate)

Committee on Oxysulfate Cement Flooring

B. L. KNOWLES
Washington, D. C.

Committee on Graphic Symbols

R. S. NOONAN
York, Pennsylvania

Sectional Committee on Performance Requirements for Protective Occupational Footwear

G. O. GRIFFIN
Pittsburgh, Pennsylvania

Safety Code Correlating Committee

H. B. ALEXANDER
Harrisburg, Pennsylvania
H. J. KIRK
Washington, D. C. (Alternate)

Safety Code for Conveyors and Conveying Machinery, B20

J. RUTLEDGE HILL
Dallas, Texas

Committee on Methods of Recording and Compiling Accident Statistics

G. O. GRIFFIN
Pittsburgh, Pennsylvania
H. J. KIRK
Washington, D. C. (Alternate)

Sectional Committee on Safety Codes for Ladders

HENRY E. BATON, JR.
Philadelphia, Pennsylvania
H. J. KIRK
Washington, D. C. (Alternate)

Committee Z-56, Model Laws and Ordinances

GEORGE R. JOHNSON
Hartford, Connecticut
BURTON W. BARTLETT
Hartford, Connecticut (Alternate)

Sectional Committee A-41, Masonry

CHARLES W. HUMPHREYS
Washington, D. C.
NELSON J. JEFFRESS
Washington, D. C. (Alternate)

Sectional Committee on Safety Color Code for Marking Physical Hazards

H. J. KIRK
Washington, D. C.

Chamber of Commerce of the United States

Construction and Civic Development Department Committee

ARTHUR S. HORNER
Denver, Colorado

Committee on National Defense

GLEN W. MAXON
Dayton, Ohio

A.G.C. Staff Representation on Following:

Committee on Business Statistics

Subcommittee on Construction Statistics

A.G.C. DIRECTORY

(A.G.C. Representation with Other Groups—Industry—continued)

(Chamber of Commerce of the United States, A.G.C. Staff Representation—continued)

Construction Industry Advisory Council

Research Activities Committee

Special Committee on Department of Commerce Service to Construction Industry

Subcommittee on Building Codes

Subcommittee on Apprenticeship and Training

Trade Association Department Committee

Joint Conference on Standard Construction Contracts

E. J. WHEELER

Cincinnati, Ohio
Associated General Contractors
of America

L. H. LENHARDT

Detroit, Michigan
American Water Works Association

WILLIAM STANLEY PARKER

Boston, Massachusetts
American Institute of Architects

EZRA B. WHITMAN

Baltimore, Maryland
American Society of Civil Engineers

GUSTAV J. REQUARDT

Baltimore, Maryland
(Alt.) American Society
of Civil Engineers

THOMAS H. URDAHL

Washington, D. C.
(Conference Secretary)

W. W. MACK

Dover, Delaware
American Association of State
Highway Officials

C. M. HATHAWAY

Springfield, Illinois
(Alt.) American Association
of State Highway Officials

E. L. ROETTIGER

Madison, Wisconsin
(Alt.) American Association
of State Highway Officials

W. G. NUSZ

Chicago, Illinois
American Railway Engineering
Association

F. R. LAYNG

Greenville, Pennsylvania
(Alt.) American Railway Engineering
Association

F. L. NICHOLSON

Norfolk, Virginia
(Alt.) American Railway Engineering
Association

H. E. FOREMAN

Washington, D. C.
(Executive Secretary of Conference)

National Research Council

Building Research Advisory Board

WILLIAM MUIRHEAD
Durham, North Carolina

E. J. WHEELER
Cincinnati, Ohio

Building Research Institute

WALTER L. COUSE
Detroit, Michigan

WILLIAM MUIRHEAD
Durham, North Carolina

H. E. FOREMAN

Washington, D. C.

W. A. SNOW

Washington, D. C.

Highway Research Board

M. C. MILLER
McPherson, Kansas

H. J. KIRK

Washington, D. C. (Alternate)

Committee D-6 on Metals and Welding

A. N. CARTER
Washington, D. C.

Committee on Economics of Highway
Construction and Maintenance Methods

H. J. KIRK

Washington, D. C. (Chairman)

M. C. MILLER
McPherson, Kansas

D. W. WINKELMAN
Syracuse, New York

National Safety Council

Board of Directors

D. W. WINKELMAN
Syracuse, New York

A.G.C. Members Serving on Construction Section Executive Committee

H. B. ALEXANDER
Harrisburg, Pennsylvania

GEORGE BENISH
Milwaukee, Wisconsin

C. H. BLACK
Boston, Massachusetts

GEORGE COMBS
Lansing, Michigan

KENNETH COUGHLIN
Kansas City, Missouri

LEE DEARDORF
Hicksville, Ohio

G. O. GRIFFIN
Pittsburgh, Pennsylvania

RAY HAHN
Pittsburgh, Pennsylvania

R. J. HENDERSHOTT
Minneapolis, Minnesota

HARRY J. KIRK
Washington, D. C. (Chairman)

O. LUPINSKI
Milwaukee, Wisconsin

N. B. O'CONNELL
Boston, Massachusetts

S. D. WEBB
Pittsburgh, Pennsylvania

JEROME J. WILLIAMS
Boise, Idaho

D. W. WINKELMAN
Syracuse, New York

WILLIAM E. WOODRUFF
Washington, D. C.

(A.G.C. Representation with Other Groups—Industry—continued)

American Concrete Institute

Manual of Standard Practice for Detailing
Reinforced Concrete Structures Committee

C. J. KUHN
Charleston, West Virginia

**Concrete Reinforcing Steel Institute
Committee on Awards**

E. J. WHEELER
Cincinnati, Ohio

National Joint Board for the Settlement of Jurisdictional Disputes in the Building and Construction Industry

J. D. MARSHALL
Washington, D. C.
RICHARD J. MITCHELL
Pittsburgh, Pennsylvania

Trade Associations Committee on Co-operation with the Department of Defense

H. E. FOREMAN
Washington, D. C. (Chairman)

GOVERNMENT

Commerce Department

National Bureau of Standards

Standing Committee for Standard Stock
Ponderosa Pine Windows, Sash and Screens

D. A. HARMON
Oklahoma City, Oklahoma

W. A. SNOW
Washington, D. C. (Alternate)

Standing Committee on Standards
for Structural Insulating Board

RUSSELL H. NIX
Houston, Texas

Standing Committee on Homogeneous
Fiber Wallboard

W. A. SNOW
Washington, D. C.

Central Committee on Lumber Standards

JAMES M. JARVIS
Clarksburg, West Virginia

W. A. SNOW
Washington, D. C. (Alternate)

Standing Committee on Standards for Mineral Wool Building Insulation

B. H. ARMIGER
Detroit, Michigan

Standing Committee on Steel Reinforcing Bars

H. E. FOREMAN
Washington, D. C.

Standing Committee on Wire Rope

EDWARD P. COBLENTZ
Baltimore, Maryland

Standing Committee for the Recommended Commercial Standard Covering Hardwood Veneered Doors

B. H. ARMIGER
Detroit, Michigan

National Production Authority

Construction Industry Advisory Committee

ARTHUR S. HORNER
Denver, Colorado

GLEN W. MAXON
Dayton, Ohio

WALTER L. COUSE
Detroit, Michigan

H. C. TURNER, JR.
New York, New York

Labor Department

Bureau of Apprenticeship

Federal Committee on Apprentice Training

H. E. FOREMAN
Washington, D. C.

J. D. MARSHALL
Washington, D. C. (Alternate)

General Committee on Apprenticeship for Construction Industry

FRED FISHER
Houston, Texas

W. A. SNOW
Washington, D. C. (Alternate)

National Joint Bricklaying Apprenticeship Committee

J. D. MARSHALL
Washington, D. C.

FRANK J. ROONEY
Miami, Florida

W. A. SNOW
Washington, D. C.

RUDOLPH W. WEITZ
Des Moines, Iowa

National Joint Cement Mason Apprenticeship Committee

JACK COOLEY
Detroit, Michigan

FRED FISHER
Houston, Texas

W. A. SNOW
Washington, D. C.

Bureau of Labor Statistics

Business Research Advisory Committee

Subcommittee on Construction

H. E. FOREMAN
Washington, D. C.

Executive Branch and Other

Bureau of the Budget

Advisory Committee on Construction Statistics

H. E. FOREMAN
Washington, D. C.

Federal Civil Defense Administration

Advisory Committee
ARTHUR S. HORNER
Denver, Colorado

WALTER L. COUSE
Detroit, Michigan

GLEN W. MAXON
Dayton, Ohio

(A.G.C. Representation with Other Groups—Government—continued)

(Executive Branch and Other—continued)

Housing and Home Finance Agency

**Technical Advisory Committee on Credit
and Production Statistics**

H. E. FOREMAN
Washington, D. C.

**Advisory Committee on Slum Clearance
& Urban Redevelopment**

WILLIAM MUIRHEAD
Durham, North Carolina

Office of Price Stabilization

Construction Industry Advisory Committee

LEET DENTON
Detroit, Michigan
BEN P. GRIFFITH
San Francisco, California

F. W. HELDENFELS, Jr.
Corpus Christi, Texas

MURRAY WERNER
Shreveport, Louisiana

Wage Stabilization Board

**Construction Industry Stabilization
Commission**

E. W. DUNN
Hartley, Iowa

J. D. MARSHALL
Washington, D. C.

J. WILLIAM WADE
Chicago, Illinois
(Alternate)

Membership Qualifications

To qualify for membership in the association, a general contractor must have been engaged in the business of general contracting for two or more years prior to making application and possess the essential attributes of skill, integrity, and responsibility.

SKILL

He must possess the necessary technical knowledge and practical experience, as applied to his particular form or group of undertakings, to enable him to carry them to completion in a workmanlike and economical manner.

INTEGRITY

He must consistently and persistently comply with the spirit as well as the letter of his contracts. He must have business experience and handle every transaction with fairness and honor.

RESPONSIBILITY

He must possess cash or credit to meet all his commitments, also the equipment and organization for the satisfactory performance and completion of his undertakings.

KEY TO LISTING OF A.G.C. UNITS BY STATES

	Page		Page		Page
1. Alabama		18. Maine		36. Oregon	
(a) Alabama Branch	284	(a) A.G.C. of Maine	308	(a) Portland Chapter	329
2. Arizona		19. Maryland		(b) Portland Chapter, Building Division	330
(a) Arizona Chapter	284	(a) Baltimore Builders Chapter	308	37. Pennsylvania	
3. Arkansas		(b) A.G.C. of Maryland	309	(a) Pennsylvania Builders Chapter	330
(a) Arkansas Chapter	285	20. Massachusetts		(b) Master Builders Association of Allegheny County	331
4. California		(a) New England Marine Contractors Chapter	309	(c) Constructors Association of Western Pennsylvania	331
(a) Central California Chapter	286	(b) A.G.C. of Massachusetts	309	(d) Philadelphia Chapter	332
(b) Northern California Chapter	287	21. Michigan		38. Rhode Island	
(c) San Diego Chapter	290	(a) Detroit Chapter	310	(a) Rhode Island Chapter	333
(d) Southern California Chapter	290	(b) Michigan Chapter	310	39. South Carolina	
Carolinas Branch (see 32a)		(c) Michigan Road Builders Association	311	See Carolinas Branch, page 322	
5. Colorado		(d) Upper Peninsula Michigan Chapter	312	40. South Dakota	
(a) Colorado Building Chapter	293	22. Minnesota		(a) Highway Construction Industry of South Dakota, Inc.	333
(b) Colorado Contractors Association, Inc.	293	(a) A.G.C. of Minnesota	312	41. Tennessee	
6. Connecticut		23. Mississippi		(a) Chattanooga Chapter	333
(a) Connecticut State Chapter	294	(a) Mississippi Valley Flood Control Branch	314	(b) Knoxville Chapter	334
7. Delaware		(b) Associated Building Contractors of Mississippi	314	(c) Memphis Chapter	334
(a) A.G.C. of Delaware	295	(c) Mississippi Gulf Coast Chapter	314	(d) Nashville Chapter	334
8. District of Columbia		(d) North Mississippi Chapter	314	(e) Tri-Cities Chapter	334
(a) Master Builders Association, Inc.—District of Columbia	295	24. Missouri		Mississippi Valley Flood Control Branch (see 23a)	
9. Florida		(a) Kansas City Chapter	314	42. Texas	
(a) Northeastern Florida Chapter	295	(b) A.G.C. of Missouri	315	(a) Dallas Chapter	334
(b) South Florida Chapter	296	(c) A.G.C. of St. Louis	316	(b) El Paso Chapter	335
(c) Florida West Coast Chapter	296	25. Montana		(c) Fort Worth Chapter	335
(d) Northwest Florida Chapter	296	(a) Montana Contractors' Association, Inc.	316	(d) Houston Chapter	335
(e) Florida East Coast Chapter	297	(b) Montana Building Chapter	317	(e) San Antonio Chapter	336
(f) Florida Central East Coast Chapter	297	26. Nebraska		(f) Texas Highway Branch	336
10. Georgia		(a) Nebraska Building Chapter	317	(g) Panhandle of Texas Chapter	337
(a) Georgia Branch	297	(b) Nebraska Chapter	318	(h) A.G.C. of Jefferson County	338
11. Idaho		27. Nevada		(i) South Texas Chapter	338
(a) Idaho Branch	298	(a) Nevada Chapter	318	(j) Municipal Contractors Association (Texas)	338
12. Illinois		(b) Southern Nevada Builders Chapter	318	(k) Austin Chapter	339
(a) Chicago Builders' Chapter	298	28. New Hampshire		(l) Waco Chapter	339
(b) Associated Building Contractors of Rockford, Ill.	299	(a) A.G.C. of New Hampshire	319	(m) Pipe Line Contractors' Association (Texas)	339
(c) A.G.C. of Illinois	299	29. New Jersey		(n) East Texas Chapter	340
(d) Southern Illinois Builders Association	300	(a) A.G.C. of New Jersey	319	(o) Rio Grande Valley Chapter	340
13. Indiana		30. New Mexico		(p) West Texas Chapter	340
(a) Indiana Highway Constructors, Inc.	300	(a) Associated Contractors of New Mexico	320	43. Utah	
(b) Indiana General Contractors' Association	301	(b) New Mexico Building Branch	320	(a) Intermountain Branch	341
(c) Evansville Chapter	302	31. New York		45. Virginia	
14. Iowa		(a) Buffalo Chapter	321	(a) Virginia Branch	341
(a) A.G.C. of Iowa	302	(c) Metropolitan Builders Association of New York City	321	46. Washington	
(b) Master Builders of Iowa	303	(d) New York State Chapter, Inc.	321	(a) Mountain Pacific Chapter	342
15. Kansas		32. North Carolina		(b) Seattle Chapter	343
(a) Kansas Chapter, Builders Division	304	(a) Carolinas Branch	322	(c) Spokane Chapter	343
(b) Kansas Contractors Association	305	33. North Dakota		(d) Tacoma Chapter	344
16. Kentucky		(a) A.G.C. of North Dakota	325	(e) Eastern Washington Builders Chapter	344
(a) Kentucky Highway Division	306	34. Ohio		47. West Virginia	
(b) Louisville Chapter	306	(a) Akron Chapter	326	(a) The A.G.C. of West Virginia, Inc.	345
17. Louisiana		(b) Cincinnati Chapter	326	48. Wisconsin	
(a) New Orleans Chapter	306	(c) Cleveland Chapter	326	(a) Milwaukee Chapter	345
(b) Shreveport Chapter	307	(d) Ohio Highway Chapter	327	(b) Wisconsin Chapter	346
(c) Lake Charles Chapter	307	(e) Associated Building Contractors of Toledo, Inc.	327	49. Wyoming	
(d) Baton Rouge Chapter	307	(f) The Mahoning & Shenango Valley Chapter	327	(a) A.G.C. of Wyoming	346
(e) Louisiana Highway and Heavy Construction Branch	307	35. Oklahoma		50. Alaska	
(f) Central Louisiana Chapter	308	(a) Oklahoma Builders Chapter	323	(a) Alaska Chapter	347
(g) Northeast Louisiana Contractors' Association, Inc.	308	(b) Association of Oklahoma General Contractors	328	51. Hawaii	
				NATIONAL MEMBERS	347

MEMBERSHIP LISTING

Alphabetical Roster

- A**
- AAA Constr. Co., Spokane, Wash. (46e)
 A & A Asphalt Paving Co., Birmingham, Mich. (21c)
 ABC Constr. Co., Inc., Norwalk, Calif. (4d)
 A & O Bldrs., New Orleans, La. (17a)
 A & W Constr. Co., Glasgow, Mont. (25a)
 Aalco Constr. Co., Evansville, Ind. (13c)
 Aalco Heavy Hauling & Erecting Co., St. Louis, Mo. (24c)
 Abbott, W. A., Co., Charleston, W. Va. (47a)
 Abel Constr. Co., Lincoln, Nebr. (26b)
 Aberthaw Co., Boston, Mass. (20b)
 Abraham, Chas. W., Williams Bay, Wis. (48b)
 Abraham, W. J., & Sons, Inc., Seymour, Ind. (13b)
 Abrahams, Sol. & Son Constr. Co., St. Louis, Mo. (24c)
 Abrams, A. R., Inc., Atlanta, Ga. (10a)
 Abrams Constr. Co., Greensboro, N. C. (32a)
 Abramson, John P., Constr. Co., Des Moines, Iowa (14a) (24b)
 Accione Constr. Co., Philadelphia, Pa. (29a)
 Ace Constr. Co., Omaha, Nebr. (26b)
 Ace Constr. Co., Seattle, Wash. (46a)
 Ace Excavators, Oakland, Calif. (4b)
 Ace Sand & Gravel Co., Inc., Columbus, Nebr. (26b)
 Aceto, Samuel, & Co., Portland, Me. (18a)
 Acme Constr. Co., Modesto, Calif. (4a)
 Acme Constr. Co., Eugene, Oreg. (36a)
 Adair, C. A., & Co., Atlanta, Ga. (10a)
 Adair, H. B., Constr. Co., Gardena, Calif. (4d)
 Adams, B. B., Fort Worth, Texas (42c)
 Adams Constr. Co., Minneapolis, Minn. (22a)
 Adams, Geo. B., Bryan, Texas (42f)
 Adams, H. C., Lexington, Ky. (16a)
 Adams, Jack, Los Alamos, N. Mex. (30a)
 Adams, John, Corpus Christi, Texas (42i)
 Adams, R. N., Kaufman, Texas (42f)
 Adams & Tate Constr. Co., Roanoke, Va. (45a)
 Adams, W. M., & Sons, Burlington, Vt. (28a)
 Adams, Wm. C., & Co., Waco, Texas (42L)
 Addazio Constr. Co., Inc., Long Island, N. Y. (31d)
 Adinolfi, John A., East Chicago, Ind. (13b)
 Adirondack Construction Corporation, Glens Falls, N. Y. (1L)
 Adler Constr. Co., Loveland, Colo. (5b) (36a)
 Agabiti Bros., Inc., Trenton, N. J. (29a)
 Agnew Constr. Co., Ronceverte, W. Va. (47a)
 Agsten, H. B., Jr., Charleston, W. Va. (47a)
 Agsten, H. B., & Sons, Inc., Charleston, W. Va. (47a)
 Ahern, Wm. S., Constr. Co., Chicago, Ill. (12a)
 Ahlberg, O., & Sons, Inc., Cranston, R. I. (38a)
- Aikin, Lee, Corpus Christi, Texas (42i)
 Ainsworth, A. G., Constr. Co., Austin, Texas (42k)
 Ajax Constr. Co., The, Cincinnati, Ohio (34b)
 Akard, W. C., San Francisco, Calif. (4a)
 Akmadzich, P. J., Sunland, Calif. (4d)
 Alamo Constr. Co., Alamo, Tenn. (41c)
 Alaska-Portland Contrs., Anchorage, Alaska (50a)
 Alberici, J. S., Constr. Co., St. Louis, Mo. (24c)
 Albert Constr. Co., Miami, Fla. (9b)
 Albrecht, Albert A., Co., The, Detroit, Mich. (21a)
 Albrecht, E. J., Co., Chicago, Ill. (12a)
 Al-Co Co., Los Angeles, Calif. (4d)
 Alcott Constr. Co., Sumter, S. C. (32a)
 Aldous & Co., Los Angeles, Calif. (4d)
 Aldrich, W. R., & Co., Baton Rouge, La. (17e)
 Aldridge, R. G., Kansas City, Kans. (15b) (24b)
 Alexander Constr. Co., Atlanta, Ga. (10a)
 Alexander Constr. Co., Minneapolis, Minn. (22a) (33a) (40a)
 Alexander, H. B., & Son, Inc., Harrisburg, Pa. (37a)
 Alexander & Repass, Des Moines, Iowa (14a)
 Alger-Rau, Inc., Cleveland, Ohio (34c)
 Allaire, P., & Sons, Inc., Bristol, Conn. (6a)
 Allegheny Asphalt & Paving Co., Pittsburgh, Pa. (37c)
 Allegheny Bldg. & Supply Co., Pittsburgh, Pa. (37b)
 Allen Constr. Co., Shreveport, La. (17b)
 Allen, D. F., Henryetta, Okla. (35b)
 Allen, Fred M., San Benito, Texas (42o)
 Allen, G. H., Vincennes, Ind. (13a)
 Allen, Guy R., Gardiner, Me. (18a)
 Allen, H. L., & Sons, Elton, La. (17e)
 Allen, H. R., Beaver, Pa. (37c)
 Allen, O. L., Co., Houston, Texas (42d)
 Allen, R. J., Contr. Co., Birmingham, Ala. (1a)
 Allen, Robt. L., Chattanooga, Tenn. (41a)
 Alley, A. L., & Son, Faribault, Minn. (22a)
 Alley Constr. Co., Inc., Bristol, Tenn. (41e)
 Allhands & Briley, Dallas, Texas (42f)
 Allhands & Swatzell, Inc., Dallas, Texas (42f)
 Alliance Constr. Co., South Pasadena, Calif. (4d)
 Allied Constr. Co., Phoenix, Ariz. (2a)
 Allied Engr. Co., Atlantic, Iowa (14b)
 Allison, H. F., Co., Dallas, Texas (42j)
 Allison & Haney, Albuquerque, N. Mex. (30a)
 Allstate Constr. Co., Seattle, Wash. (46a)
 Alpine Constr. Co., St. Ignace, Mich. (21c)
 Alport-Carlo Constr. Co., St. Louis, Mo. (24c)
 Alsop, John, Wakefield, Kans. (15b)
 Alstrom Constr. Co., Muskegon, Mich. (21b)
 Altman, J. J., & Co., East St. Louis, Ill. (12d)
- Altoona Constr. Corp., Hollidaysburg, Pa. (37c)
 Alves, Eugene G., Pittsburg, Calif. (4b)
 Alward, H. W., Inc., Bernardsville, N. J. (29a) (32a)
 Amaral, M., Petaluma, Calif. (4b)
 Ambrosius Industries, Inc., Louisville, Ky. (16a)
 American Asphalt Paving Co., Monrovia, Calif. (4d)
 American Constr. Co., Columbia, S. C. (32a)
 American Constr. Co., El Paso, Texas (42b)
 American Constr. Co., Inc., Washington, D. C. (8a)
 American Paving Corp., Newark, N. J. (29a)
 American Pile Driving Co., Inc., Everett, Wash. (46a)
 American Pipe & Constr. Co., Los Angeles, Calif. (4a) (4d)
 Ames Constr. Co., The, Hartford, Conn. (6a)
 Ames & Webb, Inc., Norfolk, Va. (32a)
 Amis Constr. Co., Oklahoma City, Okla. (35b)
 Amoroso, S. J., Constr. Co., San Francisco, Calif. (4a)
 Anaconda Constr. & Engr. Co., Ft. Lauderdale, Fla. (9b)
 Anchor Constr. Co., Muskogee, Okla. (35b)
 Anderberg, O. R., Co., Minneapolis, Minn. (22a)
 Andersen Constr. Co., Council Bluffs, Iowa (14b)
 Andersen Contr. Co., Des Moines, Iowa (14a)
 Anderson, Allen R., Seattle, Wash. (46b)
 Anderson, B. L., Cedar Rapids, Iowa (14a)
 Anderson Bridge Constr. Co., Tacoma, Wash. (46d)
 Anderson Bros., Rockford, Ill. (12c)
 Anderson Bros. Corp., Houston, Texas (42m)
 Anderson Constr. Co., Salem, Ill. (42m)
 Anderson Constr. Co., Holton, Kans. (15b)
 Anderson Constr. Co., McAlester, Okla. (35b)
 Anderson Constr. Co., Tacoma, Wash. (46d)
 Anderson Constr. Co., Inc., Seattle, Wash. (50a)
 Anderson Contr. Co., Longmont, Colo. (5b)
 Anderson, F. B., Inc., Los Banos, Calif. (5b)
 Anderson Fairroaks Constr. Co., Hartford, Conn. (6a)
 Anderson-Hall Co., Spokane, Wash. (46e)
 Anderson, J. Emil, & Son, Chicago, Ill. (12a)
 Anderson, J. S., Constr. Co., Spokane, Wash. (46c)
 Anderson, L. C., Co., San Diego, Calif. (4c)
 Anderson, L. C., & Sons, Huntingdon, Pa. (37a)
 Anderson & Loer, Evansville, Ind. (13c)
 Anderson, O. E., San Jose, Calif. (4a)
 Anderson, O. J., & Son, Albert Lea, Minn. (22a)
 Anderson-Oxendale, Holton, Kans. (15b)
 Anderson, P. B., & Co., Inc., Cut Bank, Mont. (25b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Anderson, P. J., & Sons, Seattle, Wash. (46a)
Anderson & Veatch, Inc., Evansville, Ind. (13c)
Anderson, W. D., Co., Austin, Texas (42k)
Andersons', Inc., Charleston, W. Va. (47a)
Andrew & Dawson, Montgomery, Ala. (1a)
Andrews-Parker, Inc., Bryan, Texas (42d)
Andrus, M. R., Beaumont, Texas (42h)
Andry & Voss, New Orleans, La. (17a)
Anglin, Ross, Austin, Texas (42f)
Ankrom & Castin, Parkersburg, W. Va. (47a)
Ann Arbor Constr. Co., Ann Arbor, Mich. (21c)
Anso Constr. Co., Inc., Long Beach, Calif. (4d)
Anson-Smith Constr. Co., Marysville, Calif. (4b)
Arborio, John, Inc., Poughkeepsie, N. Y. (31d)
Archer Bros., Inc., Atlanta, Ga. (10a)
Archibald, F. R., Oakland, Calif. (4b)
Archibald, J. O., Redwood City, Calif. (4b)
Arco Co., Atlanta, Ga. (10a)
Arenz, Theo. & J. M., Portland, Oreg. (36a)
Argentieri & Colarossi, Seattle, Wash. (46a)
Argentieri Constr. Co., Providence, R. I. (38a)
Arisse-Knapp Co., Oakland, Calif. (4b)
Arizona Concrete Pipe Co., Phoenix, Ariz. (2a)
Arizona Sand & Rock Co., Phoenix, Ariz. (2a)
Arkwright, Stanley H., Inc., Billings, Mont. (25a) (49a)
Armagost, Walter, Constr. Co., Wichita, Kans. (15a)
Armbrust, E. E., North Little Rock, Ark. (3a)
Armo Drainage & Metal Prods., Inc., Middletown, Ohio (34b)
Armiger Constr. Corp., Baltimore, Md. (19a)
Armstrong, W. H. Co., Inc., Dunedin, Fla. (9c)
Armstrong & Armstrong, Roswell, N. Mex. (30a) (42f)
Armstrong & Armstrong, Wenatchee, Wash. (46b)
Armstrong Constr. Co., Kingsport, Tenn. (41e)
Armstrong, J. D., Co., Inc., Ames, Iowa (14a)
Armstrong, J. R., El Cerrito, Calif. (4b)
Arney, Arthur J., Pine Bluff, Ark. (3a)
Arnold Constr. Co., Palm Beach, Fla. (9e)
Arnold, L. G., Inc., Eau Claire, Wis. (48b)
Arnold, Lewis W., Mexico, Mo. (24b)
Arnold Bros., Inc., N. Plainfield, N. J. (29a)
Arntzen, Erling, Escanaba, Mich. (21d)
Arras, Adam, & Son, San Francisco, Calif. (4a)
Arrington Constr. Co., Idaho Falls, Idaho (11a)
Arrow Petroleum Co., Chicago, Ill. (12c)
Arthur & Allen, Pueblo, Colo. (5b)
Arthur Bros., Kingsville, Texas (42i)
Artley Co., Savannah, Ga. (10a)
Artukovich Bros., Inc., Paramount, Calif. (4d)
Arute Bros., Inc., New Britain, Conn. (31d)
Arzani, Victor C., Contr. Co., Syracuse, N. Y. (31d)
Ashbach, Otto B., & Sons, Inc., St. Paul, Minn. (22a)
Ashby & Opperman, Bakersfield, Calif. (4d)
Asheville Paving Co., Asheville, N. C. (32a)
Ashton Bldg. Co., Tucson, Ariz. (2a)
Ashworth & Son Co., Minneapolis, Minn. (22a)
Askevold Constr. Co., Inc., Missoula, Mont. (25b)
Askins, C. B., Lake City, S. C. (32a)
Aslett Constr. Co., Twin Falls, Idaho (11a)
Asphalt Paving Co., Klamath Falls, Oreg. (36a)
Asphalt Paving Co., Not Inc., Coral Gables, Fla. (9b)
Asphalt Paving & Constr. Co., Inc., Boise, Idaho (11a)
Asphalt Paving & Engr. Co., Tacoma, Wash. (46d)
Asphalt Paving Materials Co., Los Angeles, Calif. (4d)
Asphalt Prods. Co., Martinsburg, W. Va. (47a)
Asphalt Roadways Co., Buffalo, N. Y. (31d)
Asphalt Service Co., Baltimore, Md. (19b)
Asphalt Surfacing Co., Indianapolis, Ind. (13a)
Asplund Constr. Co., Enid, Okla. (15b) (42j)
Asselyn, Ernest J., Portland, Me. (18a)
Assenmacher Constr. Co., Lincoln, Nebr. (26a)
Associated Bldrs., Inc., The, Anderson, Ind. (13b)
Associated Constr. Co., Phoenix, Ariz. (2a)
Associated Constr. Co., The, Hartford, Conn. (6a)
Associated Engrs., Palo Alto, Calif. (4b)
Associated Pipe Line Contrs., Inc., Houston, Texas (42m)
Associated Pipeline Welders, Inc., Colma, Calif. (4b)
Associated Sand & Gravel Co., Everett, Wash. (46a)
Asta Constr. Co., Rio Vista, Calif. (4b)
Atchison, R. R., Co., The, Englewood, Colo. (5b)
Atherton Constr. Co., Seattle, Wash. (46b)
Atkin-Fordon Co., Detroit, Mich. (21a)
Atkinson Bros., Inc., San Jose, Calif. (4b)
Atkinson, C. H., Paving Co., Chillicothe, Mo. (15b) (24b)
Atkinson, Guy F., Co., South San Francisco, & Long Beach, Calif.; Portland, Oreg.; Denver, Colo.; Seattle, Wash. (N) (4b) (4d) (5b) (36a) (46a) (46c) (46d)
Atlantic Bitulithic Co., Richmond, Va. (32a)
Atlantic Bldg. Co., Inc., Charlotte, N. C. (32a)
Atlantic Bldg. Corp., Columbia, S. C. (32a)
Atlantic Constr. Co., Houston, Texas (42d)
Atlantic Constr. Co., Inc., Des Moines, Iowa (14a)
Atlantic County Constr. Co., Atlantic City, N. J. (29a)
Atlas Constr. Co., Waxahachie, Texas (23a)
Atletwed, F. C., St. Clair, Mich. (21c)
Auch, Geo. W., Co., Detroit, Mich. (21a)
Auchter, Geo. D., Co., The, Jacksonville, Fla. (9a)
Audish, I. G., Houston, Texas (42d)
Augusta, Geo., Salinas, Calif. (4b)
Austin Bridge Co., Dallas, Texas (17e) (42f)
Austin Constr. Co., Dallas, Texas (35b)
Austin, E. E. & Son, Erie, Pa. (37a)
Austin Road Co., Dallas, Texas (42f)
Austin, Robt. W., Seattle, Wash. (46a)
Avery Constr. Co., Inc., Washington, D. C. (8a)
Avery Lumber Co., Inc., Sumter, S. C. (32a)
Ayers-Hagan-Booth, Inc., Providence, R. I. (38a)
Ayling Asphalt & Paving Co., Adrian, Mich. (21c)
- B**
- B.C.D. Constr. Co., Ballinger, Texas (42p)
B. D. & W., Inc., Lebanon, Pa. (37a)
B & M Constr. Corp., Oklahoma City, Okla. & Ladd Field, Alaska (42j) (50a)
BMFP Constr. Co., Lubbock, Texas (42p)
B & Q Constr. Co., New Orleans, La. (17a)
B. & R. Constr. Co., San Francisco, Calif. (4a)
B & W Constr. Co., Inc., Clearwater, Fla. (9c)
Baab Constr. Co., Greeley, Colo. (5b)
Babbitt Constr. Co., Inc., Boise, Idaho (11a)
Babcock, W. C., Constr. Co., Rensselaer, Ind. (13a)
Babler Bros., Portland, Oreg. (36a)
Bacco Constr. Co., Iron Mountain, Mich. (21c)
Bachmann, Geo., Co., Camden, N. J. (37d)
Bachner, John C., Anchorage, Alaska (50a)
Bader, J. A., & Co., Inc., Wilmington, Del. (7a)
Bader, J. A., II, Wilmington, Del. (7a)
Badraun, J. J., Seattle, Wash. & Valdez, Alaska (46a) (50a)
Baer, Paul M., & Son, Bell Gardens, Calif. (4d)
Bagwell, C. R., El Paso, Texas (42b)
Bahen, Jos. B., Constr. Co., Inc., Washington, D. C. (8a)
Bahr Constr. Co., Manitowoc, Wis. (48b)
Bahre, Geo., Co., Indianapolis, Ind. (13b)
Bail, C. R., Harrison, Mont. (25a)
Bailey-Brazell Constr. Co., Inc., Greenville, S. C. (32a)
Bailey, Jay, Constr. Co., Woodland, Calif. (4b)
Bailey, Wm. M., Co., Boston, Mass. (20b)
Bair, Roy L., & Co., Spokane, Wash. (46c) (46e)
Baker & Coombs, Inc., Morgantown, W. Va. (47a)
Baker, Earl W., Co., Oklahoma City, Okla. (42j)
Baker, G. W., Holton, Kans. (15b)
Baker & Hickey Co., The, Columbus, Ohio (34d)
Baker, Jack W., Woodland Hills, Calif. (4d)
Baker-Mitchell-Thwing Co., San Bernardino, Calif. (4d)
Baker, Myron, Gilmore City, Iowa (14a)
Baker, Roy, Ozawie, Kans. (15b)
Baker, W. E., Constr., West Durham, N. C. (32a)
Baker, Wm. D., Co., Philadelphia, Pa. (37d)
Bakers Beach Bldrs., San Francisco, Calif. (4a)
Baldwin Co., The, Little Rock, Ark. (3a)
Baldwin, L. E., Inc., Seattle, Wash. (46b) (50a)
Baldwin, Straub Corp., San Rafael, Calif. (4b)
Balfanz Constr. Co., Abilene, Texas (42p)
Ball, N. M., Sons, Berkeley, Calif. (4b)
Ball, R. F., Constr. Co., Inc., Houston, Texas (42d)

A.G.C. DIRECTORY

- Ball & Simpson, Berkeley, Calif. (4b) (4d)
 Ball, Stanley, Alhambra, Calif. (4d)
 Ballenger Paving Co., Greenville, S. C. (32a)
 Ballinger, R. C., Co., Narberth, Pa. (37d)
 Ballinger, W. R., & Son, San Francisco, Calif. (4b)
 Ballou Constr. Co., Lumberton, N. C. (32a)
 Ballou, R. R., Constr. Co., Salina, Kans. (15b)
 Baltes, A. J., Inc., Norwalk, Ohio (34d) (37c)
 Baltimore Asphalt Block & Tile Co., Baltimore, Md. (19b)
 Baltimore Contrs., Baltimore, Md. (19a)
 Bancheri, Chas., Hammonville, N. J. (29a)
 Banes Co., Inc., The, El Paso, Texas (42b)
 Bank Bldg. & Equip. Corp. of America, St. Louis, Mo. & Washington, D. C. (8a) (24c)
 Banta Constr. Co., Harper, Kans. & Oklahoma City, Okla. (15b) (35b)
 Barbarossa & Sons, Inc., St. Cloud, Minn. (22a)
 Barber Bros., Fort Smith, Ark. (35b)
 Barber Bros. Co., Baton Rouge, La. (17e)
 Barber, E. E., Constr. Co., Ft. Smith, Ark. (35b)
 Barber, Walter H., La Mesa, Calif. (4c)
 Barbettini, E., San Francisco, Calif. (4b)
 Barbour & Short, Norman, Okla. (35a)
 Barcus, L. G., & Sons, Inc., Kansas City, Kans. (15b)
 Bardell, Robt., Oakland, Calif. (4a)
 Barge-Thompson Co., Atlanta, Ga. (9b) (10a) (32a)
 Barger, Chas. W., & Son, Lexington, Va. (45a)
 Barger Constr. Co., Inc., Mooresville, N. C. (32a)
 Barker, Ellis W., Co., Salt Lake City, Utah (43a)
 Barker-Rose Constr. Co., Marshalltown, Iowa (14a)
 Barker, Walter H., Inc., Taunton, Mass. (20b)
 Barksdale & LeBlanc, Baton Rouge, La. (17d)
 Barling, W. E., Inc., Meeteetse, Wyo. (49a)
 Barmac Constr. Co., Inc., Chester, Ill. (12d)
 Barnes Constr. Co., Grand Rapids, Mich. (21b)
 Barnes, H. D., Inc., Greensboro, N. C. (32a)
 Barnes, Jas. I., Constr. Co., Logansport, Ind. & Santa Monica, Calif. (4d) (13b)
 Barnes, Jos. L., Constr. Co., San Francisco, Calif. (4a)
 Barnes-Mattison, Inc., Minneapolis, Minn. (22a)
 Barnes, W. L., Austin, Texas (42f)
 Barnes, W. M., Co., Los Angeles, Calif. (4d)
 Barney, L. P., Helena, Mont. (25b)
 Barney, W. J., Corp., New York City & Groton, Conn. (6a) (31c)
 Barnhart & Wheeler, Pocatello, Idaho (11a)
 Barnhill & Long, Inc., Tarboro, N. C. (32a)
 Barr, G. W., Constr. Co., Tacoma, Wash. (46d)
 Barr, Gleason & Barr, Inc., New York City (31c)
 Barrett, Albert E., Trenton, N. J. (29a)
 Barrett & Hilp, San Francisco & Los Angeles, Calif. (4a) (4d)
 Barrett, J. S., Newport Beach, Calif. (4d)
 Barrow & Shaffer Constr. Co., Everett, Wash. (46b)
 Barrus Constr. Co., Kinston, N. C. (32a)
 Bartholomew, B. W., Charlotte, N. C. (32a)
 Bartholomew, J. G., Dallas, Texas (42j)
 Bartholow, W. E., & Son Constr. Co., Huron, S. Dak. (40a)
 Bartlett-Brainard Co., Hartford, Conn. (6a)
 Bartley & Binnings, New Orleans, La. (17a)
 Barton-Malow Co., Detroit, Mich. (21a)
 Bartram, Wilmer W., Grandview, Wash. (46b)
 Baruch Corp., Los Angeles, Calif. (4d)
 Basanda Constr. Co., Oklahoma City, Okla. (35a)
 Basich Bros. Constr. Co., Carvey, Calif. (4d)
 Bass, D. C., & Sons Constr. Co., Enid, Okla. (35a)
 Bass Engr. & Constr. Co., Birmingham, Mich. (21a)
 Bass, G. E., & Co., Jackson, Miss. (23b)
 Bass, Jos. A., Co., Minneapolis, Minn. (22a)
 Batchelder & Hazen, Juneau, Alaska (50a)
 Bate, Thos., & Sons, Inc., Houston, Texas & Denver, Colo. (5a) (42d) (42j)
 Bateman, J. C., San Jose, Calif. (4b)
 Bates & Rogers Construction Corporation, Chicago, Ill. & San Francisco, Calif. (N) (4b) (12c) (37c)
 Baton Constr. Corp., Philadelphia, Pa. (37d)
 Batson, C. A., Co., Brockton, Mass. (20b)
 Batson-Cook Co., Inc., West Point, Ga. (10a)
 Bauer Bros. Constr. & Supply Co., Belleville, Ill., & Evansville, Ind. (12d) (13c)
 Bauer, Martin L., Construction Company, Middletown, Ohio (L)
 Bauer Schoeneck Constr. Co., Milwaukee, Wis. (48a)
 Baugh Co., The, Seattle, Wash. (46b)
 Baugh & Scott, San Antonio, Texas (42e)
 Baughman, H. L., Inc., Rochester, N. Y. (31d)
 Baughman, Roy, Oklahoma City, Okla. (35b)
 Baulne & Frieske, Yardley, Wash. (46c)
 Baumann, Geo. E., Nevada, Mo. (15a)
 Baumeister, Wm., Constr. Co., St. Paul, Minn. (22a)
 Baun Constr. Co., Fresno, Calif. (4b)
 Baxter Constr. Co., Houston, Texas (42d)
 Baxter, Don, Sicily Island, La. (17g)
 Bay City Constr. Co., Mobile, Ala. (1a)
 Bay Constr., Inc., Seattle, Wash. (46a)
 Bay State Dredg. & Contr. Co., East Boston, Mass. (20a)
 Baya, Harry, Constr. Co., Inc., Tampa, Fla. (9c)
 Bays Mountain Constr. Co., Kingsport, Tenn. (41e)
 Beacon Constr. Co., Allston, Mass. (20b)
 Beall, I. G., Phoenix, Ariz. (2a)
 Beals, A. C., Co., Providence, R. I. (38a)
 Bear Bros., Inc., Montgomery, Ala. (1a)
 Beattie Corp., The, Fall River, Mass. (20a)
 Beauchamp, Victor R., Inc., Washington, D. C. (8a)
 Beaumont Constr. Co., Beaumont, Texas (42h)
 Beaver Asphalt Paving & Constr. Co., New Brighton, Pa. (37c)
 Bechtel Corp., San Francisco & Los Angeles, Calif. & Wellston, Mo. (2a) (4b) (4d) (24c) (42m)
 Beck-Henderson, Corpus Christi, Texas (42i)
 Beck, Henry C., Co., Atlanta, Ga. & Dallas, Texas (10a) (42a)
 Beck, O. J., & Sons, Corpus Christi, Texas (42i)
 Beckelheimer, W. T., Jackson, Miss. (23b)
 Beckenhauer Bros., Norfolk, Nebr. (26a)
 Becker Constr. Co., Newark, N. J. (L)
 Becker, Peter, Calumet City, Ill. (13b)
 Becker, Roland H., Inc., Elm Grove, Wis. (48a)
 Beckering Constr. Co., Grand Rapids, Mich. (21b)
 Beckett & Federighi, Oakland, Calif. (4a)
 Beckham, E. M., Constr. Co., Perry, Ga. (10a)
 Beckman, J. H., Constr. Co., Sioux Falls, S. Dak. (40a)
 Becksmith Engr. Co., Pittsburgh, Pa. (37c)
 Bedders, Wm. E., Brookline, N. H. (28a)
 Beebe, Del R., Constr. Co., Eugene, Oreg. (36a)
 Beebe, John C., Grand Forks, N. Dak. (33a)
 Beerman & Jones, Sonora, Calif. (4b)
 Beers Constr. Co., Atlanta, Ga. (10a)
 Beers, Gilbert, Atlanta, Ga. (10a)
 Beggs, W. C., Los Angeles, Calif. (4d)
 Behrens Constr. Co., Beatrice, Nebr. (26b)
 Belcher Oil Co., Miami, Fla. (9b)
 Bell, Braden, Barker & Gilvin, Inc., Amarillo, Texas (42h)
 Bellardino, John, Inc., Seneca Falls, N. Y. (31d)
 Bellevue Constr. Co., Bellevue, Wash. (46a)
 Belli, E., Inc., Reno, Nev. (27a)
 Bellows, W. S., Constr. Corp., Houston, Texas (42d)
 Ben Constr. Co., Pittsburgh, Pa. (37c)
 Benderoff, V. C., Des Moines, Iowa (14a)
 Bengal, A. M., Spokane, Wash. (46e)
 Ben Hur Constr. Co., St. Louis, Mo. (24c)
 Benike, Alvin E., Rochester, Minn. (22a)
 Bennett, C. T., Constr. Co., Kings Mountain, N. C. (32a)
 Bennett-Campbell, Inc., Seattle, Wash. (46b)
 Bennett Constr. Co., Topeka, Kans. (15a) (15b)
 Bennett Constr. Co., Kansas City, Mo. (24a)
 Bennett, Geo., Constr. Co., Kansas City, Kans. (15b) (24b)
 Bennett, Henry C., Co., Dallas, Texas (42a)
 Bennett, Jos. E., Co., Inc., Boston, Mass. (20b)
 Bennett-Stewart Co., Inc., Boston, Mass. (20b)
 Bennett, W. H., Constr. Co., Kansas City, Kans. (15b)
 Bennett, W. H., & Reece Constr. Co., Kansas City, Kans. (24b)
 Benold, A. Wilson, Bend, Oreg. (36a)
 Benson Co., The, Houston, Texas (42d)
 Benson-Montin, Inc., Seattle, Wash. (46a)
 Benson, Roy, & Son, Stephen, Minn. (22a)
 Bent Constr. Co., Los Angeles, Calif. (4d)
 Bentley, A., & Sons Co., The, Toledo, Ohio (34c)
 Bentley Constr. Co., Milwaukee, Wis. (48a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Bentley, Thos. H., & Son, Inc., Milwaukee, Wis. (48a)
- Bentson Constr. Co., Phoenix, Ariz. (2a)
- Benz, Dale, Inc., Phoenix, Ariz. (2a)
- Benzing, A., & Sons, Hamilton, Ohio (L)
- Berenz & Son Asphalt Co., Bloomington, Ill. (12c)
- Berg, Chris, Inc., & Assos., Fairbanks, Alaska (50a)
- Berg Constr. Co., Inc., Juneau, Alaska (50a)
- Bergesen, Sam, Tacoma, Wash. (46d)
- Berggren, Harry F., & Sons, Scottsbluff, Nebr. (26b)
- Bergstrom, H. R., & Robt. B. Yates, Marshall, Texas (42n)
- Berkebile Bros., Johnstown, Pa. (37a)
- Bermingham, J. W., Constr. Co., Inc., Corpus Christi, Texas (42i)
- Bernard & Byrd, Mobile, Ala. (1a)
- Berna Constr. Co., Indianapolis, Ind. (13a)
- Bero Engr. & Constr. Corp., Buffalo, N. Y. (31d)
- Berretta Constr. Co., Wyoming, Pa. (37a)
- Berry, C. B., Denver, Colo. (5b)
- Bertelsen Constr. Co., Houston, Texas (42d)
- Best, Glenn R., Constr. Co., Longmont, Colo. (26a)
- Bester-Long, Inc., Hagerstown, Md. (19b)
- Betpoucy, Clement, Jr. & Co., New Orleans, La. (17a)
- Bettancourt, Jos., San Bruno, Calif. (4a)
- Bey Constr. Co., Cedar Rapids, Iowa (14b)
- Beyer & Abrahamson, Los Angeles, Calif. (4d)
- Bianchi, Carlo, and Company, Inc., Framingham, Mass. (L)
- Biasotti, Louis, & Son, Stockton, Calif. (4b)
- Biba, W. A., Engr. Co., Geneva, Nebr. (26b)
- Bickel, Henry, Co., Inc., Louisville, Ky. (16b)
- Bickerton, W. E., Constr. Co., Inc., Baltimore, Md. (19a)
- Bickhard Constr. Co., Denver, Colo. (5a)
- Biesinger, Geo. L., & Son, Salt Lake City, Utah (43a)
- Big Horn Constr. Co., Sheridan, Wyo. (49a)
- Bigge Drayage Co., Oakland, Calif. (4b)
- Bigler & Bigler, Corpus Christi, Texas (42i)
- Biles, J. B., Constr. Co., McAlester, Okla. (35b)
- Bilhorn, Bower & Peters, Inc., Clayton, Mo. (24b)
- Billings Constr. Co., Billings, Mont. (25a)
- Bingham Constr. Co., Sacramento, Calif. (4a)
- Binghamton Constr. Co., Inc., Binghamton, N. Y. (31d)
- Birch, S., & Sons Constr. Co., Great Falls, Mont., Fargo, N. Dak. & Seattle, Wash. (25a) (33a) (46a) (49a) (50a)
- Birchby & Nauman, Inc., Denver, Colo. (5b)
- Birdsall, John H., Jr., Palm Beach, Fla. (9e)
- Birkemeier & Saremal, Portland, Oreg. (36a)
- Birmingham Constr. Co., Birmingham, Mich. (21a)
- Bishop, E. B., Orland, Calif. (4b)
- Bishop & Lock Constr. Co., Dallas, Texas (42m)
- Bisson, W. M., & Son, Laconia, N. H. (28a)
- Biwabik Gravel Co., Inc., Virginia, Minn. (22a)
- Black Hills Consts., Inc., Rapid City, S. Dak. (49a)
- Black, J. J., & Co., Atlanta, Ga. (10a)
- Blackburn, W. H., Constr. Co., Oklahoma City, Okla. (35b)
- Blacktop Constr. Co., Inc., Billings, Mont. (25a)
- Blacktop Constr. Co., Emporia, Kans. (15b)
- Black Top Paving Co., Washington, Pa. (37c)
- Blackwell Engr. Co., Warrenton, Va. (45a)
- Blades, A. L., & Sons, Hornell, N. Y. (31d)
- Blair Bros. Constr. Co., Quinter, Kans. (15b)
- Blakeslee, C. W., & Sons, Inc., New Haven, Conn. (6a)
- Blakeslee, E. H., Constr. Co., Great Falls, Mont. (25a)
- Blakeslee Rollins Corp., Boston, Mass. (20a)
- Blakeslee-Spierung Co., Sausalito, Calif. (4b)
- Blanchard, G. E., Denver, Colo. (5b)
- Blanchard, Wm. L., Co., Newark, N. J. (L)
- Bland, Joe, Constr. Co., Austin, Texas (42j)
- Blankenship Bros., Charlotte, N. C. (32a)
- Blanks, H. B., Constr. Co., Vidalia, La. (23a)
- Blann-Lane Constr. Co., Tampa, Fla. (9c)
- Blaser, Frank E., Bldg. Co., Wichita, Kans. (15a)
- Blattner, D. H., & Sons, Albany, Minn. (22a)
- Blauner Constr. Co., Chicago, Ill. (12a)
- Blaw-Knox Constr. Co., Pittsburgh, Pa. (4d) (42d)
- Blomquist Oil Service, Inc., Redwood City, Calif. (4b)
- Bloom, Dale, Overbrook, Kans. (15b)
- Blount Bros. Constr. Co., Montgomery, Ala. (17a)
- Blue River Sand & Gravel Co., Irving, Kans. (15b)
- Blue, W. A., Constr. Co., St. Louis, Mo. (24c)
- Blue Water Excavating Co., Port Huron, Mich. (21c)
- Blum, Frank L., & Co., Winston-Salem, N. C. (32a)
- Blunk, J. C., Constr. Co., Ottumwa, Iowa (14a)
- Blythe Bros. Co., Charlotte, N. C. (32a)
- Blythe & Isenhour, Charlotte, N. C. (32a)
- Boatright-Smith, Rawlins, Wyo. (49a)
- Bobier Constr. Co., Twin Falls, Idaho (11a)
- Bobo, Fabian, San Rafael, Calif. (4b)
- Bock Constr. Co., Inc., Dallas, Texas (42a)
- Boen, Olav, Constr. Co., Seattle, Wash. (46b)
- Boen-Sealand Consts., Seattle, Wash. (50a)
- Boespflug, J. C., Constr. Co., Billings, Mont. & Seattle, Wash. (25a) (25b) (46a) (46b) (50a)
- Boh Bros. Constr. Co., New Orleans, La. (17a)
- Bolander, Carl, & Sons Co., Minneapolis, Minn. (22a)
- Bolduc, L. H., & Co., Minneapolis, Minn. (22a)
- Bollinger, J. J., Constr. Co., Oklahoma City, Okla. (35a)
- Bolton-Pratt Co., The, Cleveland, Ohio (34c)
- Bona Fide Bldrs., Inc., Tacoma, Wash. (46d)
- Bond Bros., Inc., Everett, Mass. (20b)
- Bond, E. Lee, Contractor, Inc., Houston, Texas (42d)
- Bondgard Constr. Co., Racine, Wis. (48b)
- Bonesteel & Hyde, Pierre, S. Dak. (40a)
- Bong, Clifford C., & Co., Arcadia, Calif. (4d)
- Bonine, Paul M., Abilene, Texas (42p)
- Bonnell Constr. Co., Tacoma, Wash. (46d)
- Bontrager Constr. Co., Elkhart, Ind. (13a)
- Bonvicini Bldg. Co., Torrington, Conn. (6a)
- Bookout, W. T., Constr. Co., Las Vegas, N. Mex. (30a)
- Boone Contr. Co., Nashville, Tenn. (41d)
- Boone, S. J., Owensboro, Ky. (16a)
- Booth & Flinn Co., Pittsburgh, Pa. (37c)
- Booth & Olson, Inc., Sioux City, Iowa (14a)
- Boquet Constr. Co., Inc., Pittsburgh, Pa. (37c)
- Borchman, A., Sons, Omaha, Nebr. (26a)
- Borden, Val, Constr. Co., Salina, Kans. (15a)
- Bormolini, Louis, & Son, Novato, Calif. (4b)
- Bornstein, Ale, Inc., Louisville, Ky. (16b)
- Boso & Ritchie, Inc., Ravenswood, W. Va. (47a)
- Bossi Constr., Inc., Boston, Mass. (20b)
- Bost, P. M., Mobile, Ala. (1a)
- Bostic, A. A., & D. M., Rupert, W. Va. (47a)
- Bott, C. N., New Orleans, La. (17a)
- Boudwin, Walker, Constr. Co., Reno, Nev. (27a)
- Bouffle Constr. Co., Houston, Texas (42d)
- Bouten, Gus J., Constr. Co., Spokane, Wash. (46e)
- Bowen, R. A., Constr. Co., Macon, Ga. (10a)
- Bowerman Bros., Providence, R. I. (38a)
- Bowerman Bros., Berryville, Va. (45a)
- Bowers Bldg. & Constr. Co., Salt Lake City, Utah (43a)
- Bowers & Chilton, Inc., Charleston, W. Va. (47a)
- Bowers Constr. Co., Raleigh, N. C. (32a)
- Bowers Constr. Co., Inc., Topeka, Kans. (15a)
- Bowles, E. G., Richmond, Va. (45a)
- Bowman Constr. Co., Inc., Marion, Ind. (13b)
- Boydjohn Haig M., & Assos., Inc., Columbus, Ohio (34b)
- Boyce Co., Clearwater, Fla. (9c)
- Boyd & Goforth, Inc., Charlotte, N. C. (32a)
- Boyd, H. R., Co., Inc., Dearborn, Mich. (21c)
- Boyd, J. O., Constr. Co., Dallas, Texas (42a)
- Boyer, John E., Washington, Pa. (37c)
- Boyette, M. E., Constr. Co., Kensett, Iowa (14a)
- Boyle Constr. Co., Sumter, S. C. (32a)
- Boyle, M. J., & Co., Chicago, Ill. (12a)
- Brabham, V. Lyn, Florence, S. C. (32a)
- Bradbury, O. G., Albuquerque, N. Mex. (30b)
- Bradbury, P. A., Constr. Co., Aberdeen, S. Dak. (22a) (33a) (40a)
- Braden Constr. Co., Griswold, Iowa (14a)
- Bradfield, J. P., Columbus, Ga. (10a)
- Bradley & Dysart, Phoenix, Ariz. (2a)
- Bradshaw, L. S., & Sons, Salisbury, N. C. (32a)
- Brady Constr. Co., Seattle, Wash. (46a)
- Brady, E. P., & Co., Flint, Mich. (21c)
- Brady, Geo. J., Co., Inc., Hamden, Conn. (6a)
- Brady, John T., & Co., Inc., New York City (31c)
- Bragato Paving Co., Belmont, Calif. (4b)
- Brailei Homes, Inc., North Little Rock, Ark. (3a)
- Brandt, Alfred, Escanaba, Mich. (21d)
- Brandt Bros. & Co., Indianapolis, Ind. (13b)
- Brann & Stuart Co., Philadelphia, Pa. (29a)
- Branton Co., Little Rock, Ark. (3a)
- Braselton Constr. Co., Corpus Christi, Texas (42i)
- Brasfield, Thos. C., Birmingham, Ala. (1a)
- Bratthauer-Walker Co., North Miami, Fla. (9b)
- Braun, C. F., & Co., Alhambra, Calif. (4d)
- Braun, Carl, & Son, Jackson, Mich. (21b)

A.G.C. DIRECTORY

- Braund Constr. Co., Inc., Anchorage, Alaska (50a)
 Bray, Edw. E., Co., Inc., Bridgeport, Conn. (6a)
 Bray, J. N., Co., Valdosta, Ga. (10a)
 Brayman Constr. Co., Pittsburgh, Pa. (37c)
 Brazier Constr. Co., Seattle, Wash. (46b)
 Breen, J. C., Sacramento, Calif. (4b)
 Bremer, C. C., & Co., Niagara Falls, N. Y. (31a)
 Bremer, J. C., Hillsboro, Ill. (12c)
 Brennan, J. P., Redding, Calif. (4b)
 Brennan, J. W., Pocatello, Idaho (11a)
 Brennan, Thos. P., Inc., Dallas, Texas (42a)
 Brenner & Myshka Co., Inc., Wichita, Kans. (15a)
 Breslin Constr. Co., Inc., Louisville, Ky. (16a) (13a)
 Bressi & Bevanda Constrs., Inc., North Hollywood, Calif. (4b) (4d)
 Brewer & Brewer Sons, Inc., Chillicothe, Ohio (34d)
 Brewer Co., Madeira, Ohio (34b)
 Brewer Co. of Florida, Inc., The Miami, Fla. (9b)
 Brewer & McMichael, Inc., Holdenville, Okla. (35b)
 Brewer, N. E., Co., Winston-Salem, N. C. (32a)
 Brewton, Howard, Portland, Oreg. (36b)
 Brezina Construction Company, Inc., Rapid City, S. Dak. (L)
 Brezner, Barnet, Alexandria, La. (17f)
 Brice Bldg. Co., Inc., Birmingham, Ala. (1a) (17a)
 Bride & Didier, Sioux City, Iowa (14b)
 Bridges, C. G., Escanaba, Mich. (21c)
 Bridges, E. C., Heath Springs, S. C. (32a)
 Bridges Paving Co., St. Louis, Mo. (12c) (24c)
 Brien Bldg. Co., Inc., Woonsocket, R. I. (38a)
 Briggs, A. R., Constr. Co., Macon, Ga. (10a)
 Briggs Constr. Co., Tacoma, Wash. (46d)
 Briggs, R. W., & Co., San Antonio, Texas (42f)
 Brighton Sand & Gravel Co., Sacramento, Calif. (4b)
 Brighton & Wing, Birmingham, Mich. (21c)
 Brinkley, E. P., Raleigh, N. C. (32a)
 Brinkley, John H., Thomasville, N. C. (32a)
 Brinkley, W. F., & Son Constr. Co., Inc., Granite Quarry, N. C. (32a)
 Briscoe, Frank, Co., Inc., Newark, N. J. (L)
 Briscoe, J., Stillwater, Okla. (35b)
 Brisset Lumber Co., The, Anderson, S. C. (32a)
 Brittain & Gibbins, Fort Worth, Texas (42f)
 Brittain, T. C., Co., Decatur, Ga. (10a)
 Brittan, J. P., & Co., Portland, Oreg. (36a)
 Britton Contr. Co., Inc., Washington, Pa. (42m)
 Broad, John, Constr. Co., Austin, Texas (42k)
 Broce Constr. Co., Woodward, Okla. & Dodge City, Kans. (15b) (35b)
 Broce & Smith, Inc., Larned, Kans. (15b)
 Brock, M. J., & Sons, Inc., Los Angeles, Calif. (4d)
 Brockhaus, Ed, Shreveport, La. (17b)
 Brockmeyer Constr. Co., St. Louis, Mo. (24c)
 Brockob, R. L., Constr. Co., Chicago, Ill. (12a)
 Brodie Constr. Co., Amarillo, Texas (42m)
 Brogan Constr. Co., Des Moines, Iowa (14a)
 Brommer, O. G., Belleville, Kans. (15b)
 Brookfield Constr. Co., Inc., New York, N. Y. (29a)
 Brooklawn Constr. Co., The, Hartford, Conn. (6a)
 Brooklyn Engr. Corp., Baltimore, Md. (19a)
 Brooks Constr. Co., Ft. Wayne, Ind. (13a)
 Brooks, Larry T., Tulsa, Okla. (35a)
 Brooks Paving Co., Miami, Fla. (9b)
 Brose Constr. Co., Cincinnati, Ohio (34b)
 Brosnahan, Earl F., Kansas City, Mo. (15b)
 Brosnahan, Emmet, Constr. Co., Harrisonville, Mo. (24b)
 Brosz, Paul, & Sons, Inc., Philadelphia, Pa. (37d)
 Brotemarkle, S. T., Constr. Co., Cumberland, Md. (19b) (37c)
 Brotherton, Fred J., Inc., Hackensack, N. J. (L)
 Broughton, O. J., Dallas, Texas (42j)
 Broussard, A. B., Baton Rouge, La. (17d)
 Browder, Earl T., Inc., St. Albans, W. Va. (47a)
 Brown, Alfred, Constr. Co., Salt Lake City, Utah (43a)
 Brown Bros., Chattanooga, Tenn. (41a)
 Brown Bros. Constr. Co., Manhattan, Kans. (15b)
 Brown & Brown, Inc., Salina, Kans. (15b)
 Brown, Chas. T., Co., San Fernando, Calif. (4d)
 Brown Constr. Co., Colorado Springs & Pueblo, Colo. (5b) (49a)
 Brown Constr. Co., Portland, Me. (18a)
 Brown Constr. Co., Houston, Texas (42d)
 Brown Constr. Co., The, Cleveland, Ohio (34c)
 Brown Contr. Co., Albuquerque, N. Mex. (30a)
 Brown, Dave L., Chattanooga, Tenn. (41a)
 Brown & Denesia Constr. Co., Broken Bow, Nehr. (26a)
 Brown-Ely Co., El Cerrito, Contra Costa County, Calif. (4b)
 Brown-Hawkins Constr. Co., Kansas City, Mo. (24a)
 Brown, J. M., Constr. Co., Inc., Shreveport, La. (17b)
 Brown, M. Clint, Co., Longview, Texas (42n)
 Brown, M. W., Redding, Calif. (4b)
 Brown, Marvin, Inc., Houston, Texas (42f) (42j)
 Brown Paving Co., Lexington, N. C. (32a)
 Brown, Robt. C., Riviera Beach, Fla. (9c)
 Brown & Root, Inc., Houston & Austin, Texas (42f) (42j)
 Brown-Schrefferman & Co., Denver, Colo. (5a)
 Brown, Thomas C., Company, Inc., Schenectady, N. Y. (L)
 Brown, V. U., Constr. Co., Downs, Kans. (15b)
 Browning, C. L., Jr., San Antonio, Texas (42e)
 Brummel, B. J., Constr. Co., Garnett, Kans. (15b)
 Brunalli Constr. Co., Southington, Conn. (31d)
 Brunetta, Dan, Gallup, N. Mex. (30b)
 Brunn Constr. Co., Kansas City, Mo. (24b)
 Brunn, S. R., Constr. Co., Kansas City, Mo. (24a)
 Bruns Bridge Co., New Orleans, La. (17a)
 Brunson, E. A., Constr. Co., St. Louis, Mo. (24c)
 Bryan, Frank, Inc., McKees Rocks, Pa. (37c)
 Bryan, J. N., & Son, Raleigh, N. C. (32a)
 Bryant Co., Franklin, Ind. (13a)
 Bryant & Detwiler Co., Detroit, Mich. (21a) (21c)
 Bryant, J. A., Vallejo, Calif. (4a)
 Bryant, J. Arlie, Spokane, Wash. (46c)
 Bryson & Ward, Memphis, Tenn. (41c)
 Buchanan, P. A., Contr. Co., Birmingham, Ala. (1a)
 Buchanan, T. N., Constr. Co., Seattle, Wash. (46b)
 Bucheit, Jos., & Sons Co., The, Youngstown, Ohio (34f)
 Buchholz, Walter T., Inc., Milwaukee, Wis. (48a)
 Buck-MacDonald Co., Boston, Mass. (20a)
 Buckler, Geo. H., Co., Portland, Oreg. (36a)
 Buckner, John F., & Sons, Cleburne, Texas (42f)
 Buckner & Pittman, Dallas Texas (42a)
 Buckner, R. C., Jacksonville, Texas (42f)
 Bucks County Constr. Co., Inc., Pennel, Pa. (29a)
 Bucy, A. L., Brownwood, Texas (42f)
 Buesching Bros. Constr. Co., Fort Wayne, Ind. (13b)
 Buffin & Rockhold, Alexandria, La. (17f)
 Bugbee, Newton A. K., & Co., Trenton, N. J. (29a)
 Buice, A. A., Elsa, Texas (42o)
 Builders Co., The, Chicago, Ill. (12a)
 Builders Co., Inc., of Youngstown, Ohio, The, Youngstown, Ohio (34f)
 Builders Constr. Co., Oklahoma City, Okla. (35a)
 Building Service Co., West Point, Miss. (23d)
 Bulley & Andrews, Chicago, Ill. (12a)
 Bumgarner's Constr. Co., Conover, N. C. (32a)
 Bumiller & Meyersieck, St. Louis, Mo. (24c)
 Bunce, H. E., Waverly, N. Y. (31d)
 Bunch Constr. Co., Odessa, Texas (42p)
 Bundock, H. R., Lubbock, Texas (42p)
 Burger, Harry, & Son, Cromwell, Ind. (13b)
 Bunnell, Geo. E., Inc., North Miami Beach, Fla. (9b)
 Buquet & LeBlanc, Baton Rouge, La. (17d)
 Burch Constr. Co., Madison, Wis. (12c) (14a)
 Burch, R. B., Inc., Cedar Rapids, Iowa (14a)
 Burden, Geo. H., Co., Inc., Little Rock, Ark. (3a)
 Burden, O. R., Constr. Corp., Tulsa, Okla. (42m)
 Burge, Floyd S., Constr. Co., Winston-Salem, N. C. (32a)
 Burger, Michael T., Portland, Oreg. (35a)
 Burgess, A. E., Contr. Co., Birmingham, Ala. (1a)
 Burggraf Constr. Co., Idaho Falls, Idaho (11a)
 Burghart, O. F., Inc., Bridgeport, Conn. (6a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

C

Burk Constr. Co., Springfield, Mo. (24b)
 Burke, J. P., Gadsden, Ala. (1a)
 Burke, Jas. J., & Co., Salt Lake City, Utah (43a)
 Burke, O. W., Co., Detroit, Mich. (21a)
 Burke & Reynolds Constr. Co., Wilmington, Calif. (4d)
 Burleson Constr. Co., Johnson City, Tenn. (41e)
 Burman, John, & Sons, Eureka, Calif. (4b)
 Burn, P. R., Las Cruces, N. Mex. (30a)
 Burner, J. R., Oblong, Ill. (12c)
 Burnett Constr. Co., Coalinga, Calif. (4b)
 Burnett Constr. Co., Durango, Colo. (5b)
 Burnett Constr. Co., Corpus Christi, Texas (42i)
 Burns, A. W., Constr. Co., The, Columbus, Ohio (34d)
 Burns-Brandes Constr. Co., Tulsa, Okla. (35a)
 Burns, J. P., Dumont, N. J. (29a)
 Burns, Tom, & Co., Inc., Portland, Oreg. (36b)
 Burrell Constr. & Supply Co., New Kensington, Pa. (37c)
 Burrell, Thos. L., Inc., Indianapolis, Ind. (13b)
 Burrington, M. J., Jr., Bennington, Vt. (28a)
 Burrows, Milone & Tucci, Inc., Tacoma, Wash. (46d)
 Burt & Binford, Hutchinson, Kans. (15b)
 Burton, A. B., Co., Inc., Lynchburg, Va. (32a)
 Burton, Chas. A., Inc., Cleveland, Ohio (34c)
 Burton & Glithero, Houston, Texas (42d)
 Burton, J. E., South Boston, Va. (45a)
 Burton-Miller Constr. Co., Inc., Ardmore, Okla. (35a)
 Busboom & Rauh, Salina, Kans.; Dallas, Texas, & Spokane, Wash. (15a) (42a) (46c)
 Bush, E. B., Constr. Co., Oklahoma City, Okla. (35a)
 Bushman Constr. Co., St. Joseph, Mo. (24b)
 Busse, Henry, Pittsburgh, Pa. (37b)
 Butcher, Earl L., Fairbanks, Alaska (50a)
 Butcher & Sweeney, Inc., Fort Worth, Texas (42c)
 Butler & Cobbs, Montgomery, Ala. (1a)
 Butler Constr. Co., Grand Forks, N. Dak. (33a)
 Butler Constr. & Engr. Co., Seattle, Wash. & Anchorage, Alaska (46a) (50a)
 Butler, H. L., & Son, Dallas, Texas (42f) (42j)
 Butler & Oenbrink, Palm Beach, Fla. (9e)
 Butler, Oscar & Son, Portland, Oreg. (36a)
 Butler, R. B., Inc., Bryan, Texas (42f)
 Butte Creek Rock Co., Chico, Calif. (4b)
 Butterfield, C. R., Co., San Pedro, Calif. (4d)
 Butterfield, L. B., San Diego, Calif. (4c)
 Buttriss & McClellan, Inc., Los Angeles, Calif. (4d)
 Byck-Worrell Constr. Co., Inc., Savannah, Ga. (10a)
 Byers, J. B., Kilgore, Texas (42n)
 Byrne Organization, Inc., Washington, D. C., & Harrisburg, Pa. (N)
 Byrne, Thos. S., Inc., Fort Worth, Texas (42c)
 Byrnes-Conway Co., Cincinnati, Ohio (34b)
 Byrum Constr. Co., The, Wheeling, W. Va. (47a)

C-B Constr. Co., Baton Rouge, La. (17d)
 C & C Contrs., Albuquerque, N. Mex. (30a)
 C. & E. Constr. Co., Inc., Yakima, Wash. (46c) (46a)
 C & H Constr. Co., Salina, Kans. (15b)
 C-L Electric Co., Pocatello, Idaho (11a)
 C & T Constr. Co., Collingswood, N. J. (29a)
 Cable Guide Rail Constr. Co., Depew, N. Y. (31d)
 Cadenhead & Rosser, Fort Worth, Texas (42c)
 Cadenhead, Thos. H., & Sons, Fort Worth, Texas (42c)
 Cadillac Asphalt Paving Co., Detroit, Mich. (21c)
 Cady, Wm. J., & Co., Amsterdam, N. Y. (31d)
 Cafardi, A. R., Pittsburgh, Pa. (37c)
 Cage Bros., San Antonio, Texas (42f)
 Cagle, Harry E., Houston, Texas (42f)
 Cahill Bros., Inc., San Francisco, Calif. (4a)
 Cahill-Mooney Constr. Co., Butte & Billings, Mont. (25a) (25b)
 Cahoon, W. R., Pocatello, Idaho (11a)
 Cail, Geo. F., & Son, Port Isabel, Texas (42a)
 Cain & Cain, Fort Worth, Texas (42c)
 Calaway, C. P., Toledo, Ohio (34d)
 Caldwell & McCann, Baton Rouge, La. (17d)
 Caledonia Sand & Gravel Co., St. Johnsbury, Vt. (28a)
 California Steel & Constr. Co., Los Angeles, Calif. (4d)
 California Steel Prods. Co., Ind. Constr. & Maint. Div., Richmond, Calif. (4b)
 Callahan Constr. Co., Colma, Calif. (4b)
 Callahan, Herbert E., Inc., Auburn, Me. (18a)
 Callan Constr. Co., Waco, Texas (42f)
 Callaway Constr. Co., Warrington, Fla. (9d)
 Calumet Paving Co., Zionsville, Ind. (13a)
 Cameron, Joyce & Co., Keokuk, Iowa (12c) (14a) (24b)
 Camillo Bros. Dump Truck Co., Glendale, Calif. (4d)
 Campanella, Edw. P., Hammonton, N. J. (29a)
 Campbell, Archie, Warwick, N. Dak. (33a)
 Campbell Constr. Co., Jackson, Miss. (23b)
 Campbell Constr. Co., Sacramento, Calif. (4a)
 Campbell Constr. Co., Inc., Shreveport, La. (17e)
 Campbell Constr. Co., The, Warren, Ohio (34f)
 Campbell Constr. & Equip. Co., San Francisco, Calif. (4b)
 Campbell, Harry, Fort Worth, Texas (42f)
 Campbell & Kay, Tyler, Texas (42d) (42f)
 Campion Co., Ogden, Utah (43a)
 Campion, F. K., Philadelphia, Pa. (37d)
 Campsey, R. N., Constr. Co., Denver, Colo. (5b)
 Canady Constr. Co., Charleston, S. C. (32a)
 Canfield, Badgett & Scarbrough Co., Memphis, Tenn. (41c)
 Canion, J. R., Constr. Co., Austin, Texas (42f)
 Cannell, E. W., Gardena, Calif. (4d)
 Cannon Constr. Co., Stockton, Calif. (4b)
 Cannon Constr. Co., Inc., Indianapolis, Ind. (13b)
 Cannon & Papanikolas, Magna, Utah (43a)

Canonie Excavating Co., Covert, Mich. (21c)
 Cantera Constr. Co., Wilmington, Del. (7a)
 Canterbury Engr. Co., Kilgore, Texas (42n)
 Cantrell & McMillan, Houston, Texas (42d)
 Canuso, Francis A., & Son, Philadelphia, Pa. (29a)
 Capital Co., San Francisco, Calif. (4b)
 Capital Constr. Co., Atlanta, Ga. (10a)
 Capps, Gordon L., Stockton, Calif. (4b)
 Carbon Bros., Spokane, Wash. (46c)
 Carbone, R. P., Constr. Co., Cleveland, Ohio (34c)
 Cardwell, Leo, Constr. Co., Santa Cruz, Calif. (4b)
 Carey & Newton Co., Brownwood, Texas (42j)
 Carlen Constr. Co., San Francisco, Calif. (4a)
 Carlson, Arved, Missoula, Mont. (25b)
 Carlson Constr. Co., Essex, Iowa (14a)
 Carlson Constr. Co., Omaha, Nebr. (14a)
 Carlson, Fred, Co., Inc., Decatur, Iowa (14a)
 Carlson, Geo., Co., Milwaukee, Wis. (48a)
 Carlson, Henry, Company, Sioux Falls, S. Dak. (L)
 Carlson & Torell Co., The, New Britain, Conn. (6a)
 Carlstrom Bros., Fremont, Nebr. (26a)
 Carmichael Constr. Co., The, Akron, Ohio (34a)
 Carolina Contr. Co., Inc., Columbia, S. C. (32a)
 Carothers, John, Fremont, Mich. (21c)
 Carpenter Bros., Dallas, Texas (42a)
 Carpenter Constr. Co., Houston, Texas (42d)
 Carpenter Constr. Co., Norfolk, Va. (45a)
 Carpenter, Hugh J., & Sons, Inc., Lansing, Mich. (21b)
 Carpenter, R. E., & Co., Rutherfordton, N. C. (32a)
 Carper & Perryclear, Christiansburg, Va. (32a)
 Carrico & Gautier, San Francisco, Calif. (4a)
 Carroll, A. C., Modesto, Calif. (4a)
 Carroll Constr. Co., Atlanta, Ga. (10a)
 Carroll Constr. Co., Chicago, Ill. (12a)
 Carroll & Foster, San Diego, Calif. (4c)
 Carrothers Constr. Co., Inc., Paola, Kans. (15b)
 Carruth, Geo. M., & Son, Evanston, Wyo. (49a)
 Carson Constr. Co., Inc., Helena, Mont. (25b)
 Carstensen, Inc., Johnstown, Pa. (37a)
 Carte Bros. Constr. Co., Inc., West Plains, Mo. (24b)
 Carter, A. G., Jr., Whiteville, N. C. (32a)
 Carter, C. E., Akron, Ohio (34a)
 Carter, Chas., Baton Rouge, La. (17d)
 Carter, Geo. W., Co., Los Angeles, Calif. (4a) (4d)
 Carter-Hassell Contr. Co., Norfolk, Va. (45a)
 Carter-Miot Constr. Co., Columbia, S. C. (32a)
 Carter, W. B., Constr. Co., Wichita, Kans. (15b)
 Carty, Herman, Little Rock, Ark. (3a)
 Cascade Constr. Co., Portland, Oreg. (36a)
 Cascade Contrs., Inc., Pasco, Wash. (46a)
 Case, F. W., Co., Van Nuys, Calif. (4d)
 Case, V. D., Co., Wilmington, Calif. (4d)
 Casey & Case Foundation Co., Los Angeles & Berkeley, Calif. (4a) (4d)
 Casey, John F., Co., Pittsburgh, Pa. (37c)
 Caskey, G. M., & Son, Athens, Ga. (10a)

A.G.C. DIRECTORY

- Casper-Lyons Co., Grand Rapids, Minn. (22a)
 Cass-Warner Corp., Essex Junction, Vt. (28a)
 Cassel Bros., Kingsport, Tenn. (41e)
 Casson Constr. Co., Topeka, Kans. (15a)
 Castle, E. B., & Son, Marion, Iowa (14b)
 Castle, M. F., Spokane, Wash. (46c)
 Castro, Earl W., Martinez, Calif. (4b)
 Castro Valley Rock Co., Hayward, Calif. (4b)
 Cauldwell-Wingate Co., New York City (31c)
 Cawdrey & Vemo, Seattle, Wash. (46b)
 Caye Constr. Co., Inc., Brooklyn, N. Y. (31c)
 Caylor Bros. Constr. Co., Hoxie, Kans. (15b)
 Cayuga Foundation Corp., New York, N. Y. (29a)
 Cecil, J. K., & Son, Lexington, N. C. (32a)
 Cecil's, Inc., Spartanburg, S. C. (32a)
 Cederstrand, August, Co., Minneapolis, Minn. (22a)
 Ceis, Philip L., Seattle, Wash. (46b)
 Cement Asphalt Prods. Co., Winfield, Kans. (15b)
 Central California Constr. Co., San Francisco, Calif. (4a)
 Central Constr. Co., Decatur, Ga. (10a)
 Central Constr. Co., Indianapolis, Iowa (14a)
 Central Constr. Co., Sioux Falls, S. Dak. (40a)
 Central Constr. Co., Spokane, Wash. (46e)
 Central Contr. Co., Oshkosh, Wis. (48b)
 Central Engr. Co., Davenport, Iowa (12c) (14a)
 Central Engr. & Constr. Co., Pawtucket, R. I. (38a)
 Central Heating Co., The, Eugene, Oreg. (36a)
 Century Constr. Co., Houston, Texas (42j)
 Chamberlain & Strain, San Antonio, Texas (42e)
 Chambers Constr. Co., Houston, Texas (42d)
 Chambers Steel Co., San Diego, Calif. (4c)
 Chambers-Tarbell, Kansas City, Mo. (24a)
 Champaign Asphalt Co., Champaign, Ill. (12c)
 Champion, Inc., Constr. Div., Iron Mountain, Mich. (21d)
 Chandler Bros., Inc., Virgilina, Va. (32a)
 Chandler Constr. Co., Cameron, Texas (42k)
 Chapel Constr. Co., The, New Haven, Conn. (6a)
 Chapman Constr. Co., Lawton, Okla. (35a)
 Chapman, J. F., & Son, Inc., Hillside, N. J. (29a)
 Chapman, Oscar T., Inc., Hutchins, Texas (42L)
 Chappell, W. M., Co., Anacostia, D. C. (8a)
 Charleston Concrete Floor Co., Charleston, W. Va. (47a)
 Chase Constr. Co., Rapid City, S. Dak. (40a)
 Chavis Constr. Co., Pensacola, Fla. (9d)
 Check, Geo. H., Constr. Co., Inc., Frankfort, Ky. (16a)
 Cheney, F. G., Williamston, Mich. (21c)
 Cherf Bros. Constr., Ephrata, Wash. (46e)
 Cherokee, Inc., Columbia, S. C. (32a)
 Chevreux, Joe, Auburn, Calif. (4b)
 Chief Joseph Bldrs., Bridgeport, Wash. (46c)
 Child, Ralph E., Springville, Utah (43a)
 Childs Constr. Co., Fort Worth, Texas (42c)
 Chilli, Geo. H., Homestead, Pa. (37b)
 Chisholm, Ralph, Constr. Co., Bellingham, Wash. (46b)
 Chism & Miller Constr. Co., Springfield, Ill. (12c)
 Choate, Jack, Harlingen, Texas (42o)
 Choate, Milo J., & Co., Tyler, Texas (42n)
 Choun Constr. Co., Inc., Denver, Colo. (5b)
 Christ, Carl W., Sidney, Nebr. (26a)
 Christensen Bros., Sioux City, Iowa (14a)
 Christensen Constr. Co., Sibley, Iowa (14b)
 Christensen Constr. Co., Salt Lake City, Utah (43a)
 Christensen & Lyons, Oakland, Calif. (4a)
 Christensen & Lyons Constr. Co., South Gate, Calif. (4d)
 Christensen Sand & Gravel Co., Fremont, Nebr. (26b)
 Christian & Bell Co., Atlanta, Ga. (10a)
 Christian, J. E., Co., The, Cleveland, Ohio (34c)
 Christiana, Vernon, Jr., Utica, N. Y. (31d)
 Christiansen Bros., Salt Lake City, Utah (43a)
 Christie Co., Arcadia, Calif. (4d)
 Christie, Richard H., Wasta, S. Dak. (40a)
 Christman Co., The, Lansing, Mich. (21b)
 Christman, H. G., Constr. Co., Inc., South Bend, Ind. (13b)
 Christopher Constr. Co., Columbus, Ohio (34d)
 Christy & Baskett, San Antonio, Texas (42e)
 Chytraus Bros. Co., Salt Lake City, Utah (43a)
 Cianchette Bros., Inc., Pittsfield, Me. (18a)
 Circle Constr. Corp., White Plains, N. Y. (31d)
 City Constr. Co., Utica, N. Y. (31d)
 City Lumber Co., Inc., Alexandria, La. (17f)
 Cladny, M., Constr. Co., Inc., Washington, D. C. (8a)
 Clair-Mel Bldrs., Inc., Tampa, Fla. (9c)
 Clancy Constr. Co., Raleigh, N. C. (32a)
 Clardy, J. B., Constr. Co., Fort Worth, Texas (42f)
 Clark Bros. Co., Peoria, Ill. (12c)
 Clark Bros. Constr. Co., Hinton, Iowa (14a)
 Clark Constr. Co., St. Joseph, Mo. (24b)
 Clark Constr. Co., Greenville, N. C. (32a)
 Clark Constr. Co., Owensboro, Ky. (13c)
 Clark Constr. Co., Inc., Grand Ledge, Mich. (21b)
 Clark & Farrell, Brinkley, Ark. (23a)
 Clark & Fay, Memphis, Tenn. (41c)
 Clark, John R., & Assocs., Inc., Cambridge, Mass. (20b)
 Clark, L. C., Visalia, Calif. (4b)
 Clark, P. M., Charlotte, N. C. (32a)
 Clark, Richard F., Co., Cambridge, Mass. (20b)
 Clark, Roy C., East Chicago, Ind. (13b)
 Clark, W. G., Co., Seattle, Wash. (46b)
 Clarkson Constr. Co., The, Kansas City, Mo. (15b) (24b)
 Clarson, R. E., Inc., St. Petersburg, Fla. (9c)
 Claussen, John, & Sons, Grand Island, Nebr. (26a)
 Claussen-Lawrence Constr. Co., Augusta, Ga. (32a)
 Claussen-Olson-Benner, Inc., Holdrege, Nebr. (26b)
 Clayton, A. L., Co., Jacksonville, Fla. (9a)
 Clearkin, Jas. J., Philadelphia, Pa. (37d)
 Cleary Bros. Constr. Co., West Palm Beach, Fla. (9e)
 Cleaver, David, Co., Akron, Ohio (34a)
 Cleckley, J. F., & Co., Orangeburg, S. C. (32a)
 Cleckley & McGee, Inc., Orangeburg, S. C. (32a)
 Clements & Co., Hayward, Calif. (4b)
 Clemmer Constr. Co., Inc., Akron, Ohio (34a)
 Cleveland Constr. Co., The, Cleveland, Ohio (34c)
 Cleverdon Co., Inc., Lafayette, Calif. (4b)
 Click Constr. Co., Elizabethton, Tenn. (41e)
 Clifford, R. G., Berkeley, Calif. (4b)
 Clifton & Applegate Co., Spokane, Wash. (25a) (46c)
 Cline, F. D., Constr. Co., Raleigh, N. C. (32a)
 Clinton Bridge Corp., Clinton, Iowa (14a)
 Clinton Constr. Co., San Francisco, Calif. (4a)
 Clinton Engr. Co., Clinton, Iowa (14a) (14b)
 Clinton, Houston, & Co., Waco, Texas (42f)
 Cloer, E. E., Fort Worth, Texas (42d)
 Close Bldg. Supply, Hayward, Calif. (4b)
 Cloud, Dudley R., & Son, San Antonio, Texas (42f)
 Clough & King Constr. Co., Albuquerque, N. Mex. (30b)
 Clough, L. M., Co., Oakland, Calif. (4b)
 Clyde, W. W., & Co., Springville, Utah (43a)
 Coast Constr. & Excavating Co., Junction City, Oreg. (36a)
 Coast Contrs., Tacoma, Wash. (46d)
 Coast, H. M., Inc., Wheeling, W. Va. (47a)
 Coast Materials Co., Gulfport, Miss. (23c)
 Coast Pipeline Contrs., Belmont, Calif. (4b)
 Coastal Properties Corp., West Palm Beach, Fla. (9e)
 Coates Constr. Co., Florence, S. C. (32a)
 Coath & Goss, Inc., Chicago, Ill. (12a)
 Coble Contr. & Engr. Co., Greensboro, N. C. (32a)
 Coble, H. L., Constr. Co., Inc., Greensboro, N. C. (32a)
 Coble, Jesse M., Greensboro, N. C. (32a)
 Codell Constr. Co., Inc., Winchester, Ky. (16a)
 Codell, M. T., & Co., Inc., Winchester, Ky. (16a)
 Coe, J. L., Constr. Co., Charlotte, N. C. (32a)
 Coffeen, A. R., Co., Decorah, Iowa & Allison Park, Pa. (14a) (14b) (37c)
 Coffey, Jas., Topeka, Kans. (15b)
 Coggins Constr. Co., Inc., Raleigh, N. C. (32a)
 Cogswell Constr. Co., The, Baltimore, Md. (19a)
 Cohen, Chas., Marshall, Texas (42f)
 Cohen, S. J., Blytheville, Ark. (23a)
 Cohenour Constr. Co., Ardmore, Okla. (35b)
 Cohron, A. M., & Son, Des Moines, Iowa (14a) (14b)
 Cohron, H. V., Mobile, Ala. (1a)
 Coker Constr. Co., Anchorage, Alaska (50a)
 Cold Spring Constr. Co., Akron, N. Y. (31d)
 Cole, Ben, & Son, Ames, Iowa (14a)
 Cole & Crumpacker, West Durham, N. C. (32a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Coleman Constr. Co., Inc., Providence, R. I. (38a)
 Coleman, L. S., Co., Inc., St. Albans, W. Va. (47a)
 Colglazier & Hoff, Inc., San Antonio, Texas (42f)
 Collins Bros., Mechanicville, N. Y. (31d)
 Collins-Bruley Constr. Co., Decatur, Ill. (12c)
 Collins Constr. Co., Kansas City, Kans. (24a)
 Collins Constr. Co., Leavenworth, Kans. (15b)
 Collins Constr. Co., Austin, Texas (42f)
 Collins, H. V., Providence, R. I. (38a)
 Collins & Hobbs, Chattanooga, Tenn. (41a)
 Collins, J. H., & Co., Walla Walla, Wash. (46c)
 Collins, O. W., Port Arthur, Texas (42h)
 Collins, Wm. L., Hornell, N. Y. (31d)
 Collins, Wm., & Sons, Inc., Fargo, N. Dak. (33a)
 Colonial Constr. Co., Spokane, Wash. (46c)
 Colorado Constrs., Inc., Denver, Colo. (5b)
 Coltrane-Graham Constr. Co., High Point, N. C. (32a)
 Coluccio, Thos. F., & Sons, Rome, N. Y. (31d)
 Columbia Asphalt Paving Co., Yakima, Wash. (46a)
 Columbia Contr. Co., Pittsburgh, Pa. (37c)
 Colvin, Leslie, Indianapolis, Ind. (13b)
 Comb, Fred R., Co., Minneapolis, Minn. (22a)
 Commercial Bldrs., Inc., Moscow, Idaho (11a)
 Commercial Contr. Corp., Detroit, Mich. (21a)
 Complete General Constr. Co., Columbus, Ohio (34d)
 Compton, J. C., Co., McMinnville, Oreg. (36a)
 Comstock, Glenn A., Bay City, Mich. (21c)
 Comte Constr. Co., Toledo, Ohio (34e)
 Concrete Bldrs., Inc., Atlanta, Ga. (10a)
 Concrete Conduit Co., Colton, Calif. (4a) (4d)
 Concrete Constr. Co., Atlanta, Ga. (10a)
 Concrete Materials & Constr. Co., Cedar Rapids, Iowa (14a) (15b) (24b) (26b)
 Condict Co., Berkeley, Calif. (4b)
 Condon-Cunningham Co., Omaha, Nebr. & Dunbar, W. Va. (5b) (14a) (24b) (26b) (47a)
 Conduit Constr. Co., Oakland, Calif. (4b)
 Conduit Contr. Co., Inc., St. Louis, Mo. (12d) (24b) (24c)
 Cone Bros. Contr. Co., Tampa, Fla. (9c)
 Congaree Constr. Co., Columbia, S. C. (32a)
 Conley Constr. Co., Mobile, Ala. (1a)
 Conley, J. N. & M. J., Portland, Oreg. (36a)
 Conlon Constr. Co., Dubuque, Iowa (14b)
 Conn Structures, Atlanta, Ga. (10a)
 Conner, Frank H., Co., Charlotte, N. C. (32a)
 Conner, Harvey E., Redwood City, Calif. (4b)
 Conner, J. L., Jr., Eureka, Calif. (4b)
 Connolly-Pacific Co., Long Beach, Calif. (4d)
 Connor, J. Robt., High Point, N. C. (32a)
 Conquest, Moncure, & Dunn, Inc., Richmond, Va. (45a)
 Conroy, Dan, & Sons, Collis, Minn. (22a)
 Consolidated Constr. Co., Tampa, Fla. (9c)
 Consolidated Constr. Co., Woodbury, N. J. (37d)
 Consolidated Constr. Co., Lumberton, N. C. (32a)
 Consolidated Constr. Co., Gulfport, Miss. (23c)
 Consolidated Constr. Co., Inc., Collingswood, N. J. (29a)
 Consolidated Constrs., Inc., Portland, Me. (18a)
 Consolidated Contrs., Memphis, Tenn. (41c)
 Consolidated Engr. Co., Wheeling, W. Va. (47a)
 Consolidated Engr. Co., Inc., Baltimore, Md. (8a) (19a)
 Constant Constr. Co., Inc., Lawrence, Kans. (15a) (15b)
 Construction Aggregates Corp., New York, N. Y. (29a)
 Construction Engrs. & Contrs., Tacoma, Wash. (46d)
 Construction Materials Co., Tucson, Ariz. (2a)
 Construction Service Co., Bound Brook, N. J. (29a)
 Construction Service, Inc., Ludlow, Ky. (47a)
 Conti & Donahue, Lynn, Mass. (20b)
 Continental Constr. Co., Chicago, Ill. (12a)
 Continental Constr. Co., Inc., Sacramento, Calif. (4a)
 Contracting Engrs. Co., The, Los Angeles, Calif. (4d)
 Conyes Constr. Corp., San Pablo, Calif. (42m)
 Coogan, Thos. P., Co., Hialeah, Fla. (3a)
 Cook & Cone, Wichita, Kans. (15b)
 Cook Constr. Co., Jackson, Miss. (23a)
 Cook, Geo., Constr. Co., Lincoln, Nebr. (26a)
 Cook, Geo. F., Constr. Co., Minneapolis, Minn. (2a) (22a)
 Cook, Ray, Constr. Co., Ames, Iowa (14a)
 Cook, S. J., & Son, Costa Mesa, Orange County, Calif. (4d)
 Cooke Constr. Co., The, Detroit, Mich. (21c)
 Cooley, E. O., Constr. Co., Ruston, La. (17g)
 Cooley, John, Co., Detroit, Mich. (21a)
 Coomer, R. M., Constr. Co., Sioux City, Iowa (14b)
 Cooney, Don L., Inc., Seattle & Tacoma, Wash. (46a) (46d)
 Coons, E. W., Co., Inc., Hibbing, Minn. (22a)
 Cooper Constr. Co., Omaha, Nebr. (26a)
 Cooper, S. E., Co., Wilmington, N. C. (32a)
 Cooper, W. M., Santa Fe, N. Mex. (30b)
 Cooper & Woodruff, Amarillo, Texas (42f)
 Coos Bay Dredg. Co., Inc., Coos Bay, Oreg. (36a)
 Copeland Constr. Co., Houston, Texas (42d)
 Corbett, Frank D., Sacramento, Calif. (4b)
 Corbetta Constr. Co., Inc., New York, N. Y. (31d)
 Corbin, John C., Contrs., Inc., Houma, La. (17a)
 Corbisello, N. R., Binghamton, N. Y. (31d)
 Corely, J. S., Constr. Co., Oklahoma City, Okla. (35a)
 Corn Constr. Co., Grand Junction, Colo. (5b)
 Cornell, J. S., & Son, Inc., Philadelphia, Pa. (37d)
 Cornell-Young Co., Macon, Ga. (10a)
 Corning, Edw., Co., New York City (31c)
 Cornish Constr. Co., Greensburg, Pa. (37c)
 Corol Constr. Corp., Pittsburgh, Pa. (37c)
 Corr, John L., Jr., New Orleans, La. (17a)
 Corson & Gruman Company, Washington, D. C. (L)
 Corum & Edwards, Madisonville, Ky. (16a)
 Cory & Longworth, Inc., San Diego, Calif. (4c)
 Costanza Constr. Co., The, Baltimore, Md. (19a)
 Costigan, J. C., Elkader, Iowa (14a)
 Coston, W. L., & Sons, Birmingham, Ala. (1a)
 Cottle, L. W., Clovis, N. Mex. (30b)
 Couch Constr. Co., Dothan, Ala. (1a)
 Council Bluffs Constr. Co., Council Bluffs, Iowa (14a)
 County Asphalt, Inc., Tarrytown, N. Y. (31d)
 Coupe Constr. Co., Louisville, Ky. (16b)
 Couper, Wm. M., Co., Ann Arbor, Mich. (21c)
 Couse, Walter L., & Co., Detroit, Mich. (21a)
 Cousins, Geo. L., Contr. Co., St. Louis, Mo. (24c)
 Covina Constr. Co., Covina, Calif. (4d)
 Cowan, C. J., Constr. Co., Inc., Topeka, Kans. (35a)
 Cowan, H. J., Co., Algona, Iowa (14b)
 Cowdin Bros., Dallas, Texas (42a)
 Cowen Constr. Co., Shawnee, Okla. (35a)
 Cowper, John W., Co., Inc., The, Buffalo, N. Y. (N) (31a)
 Cox Bros. Constr. Co., Stanton, Calif. (4d)
 Cox-Dodd Constr. Co., Sault Ste. Marie, Mich. (21d)
 Cox, Fred M., Jacksonville, Fla. (9a)
 Cox, L. P., Co., Sanford, N. C. (32a)
 Cox, P. T., Constr. Co., Inc., New York, N. Y. (29a)
 Crabtree-Maule Corp., Richmond, Ind. (13b)
 Craft Constr. Co., Pittsburgh, Pa. (37c)
 Craig, Jay W., Co., Minneapolis, Minn. (22a) (40a)
 Craig, John W., Charlotte, N. C. (32a)
 Craig-Roberson Constr. Co., Columbia, S. C. (32a)
 Craig, W. M., Gulfport, Miss. (23c)
 Crain & Denbo, Inc., Durham, N. C. (32a)
 Cramer, E. F., Indianapolis, Ind. (13b)
 Cramer-Vollmerhausen Co., Inc., Washington, D. C. (8a) (19a)
 Crandall Engr. Co., Boston, Mass. (20a)
 Cranford, Frederick L., Inc., Brooklyn, N. Y. (N)
 Crawford-Merz Co., Minneapolis, Minn. (22a)
 Crawford, W. S., Co., Dallas, Texas (42f)
 Crawford, Wm., Inc., New York City (31c)
 Crawley, David, Cincinnati, Ohio (34b)
 Creager Bros. Constr. Co., Pierre, S. Dak. (40a)
 Creed, Geo. A., & Son, Columbia, S. C. (32a)
 Creson, R. F., & Co., Memphis, Tenn. (41c)
 Crick, Jas., & Sons, Spokane, Wash. (46c)
 Crocco & Hanson, Vallejo, Calif. (4b)
 Crocker & Ellett, Inc., Denver, Colo. (5b)
 Crockett, Leslie, Constr. Co., Austin, Texas (42k)
 Croissant, F. J., Antwerp, N. Y. (31d)
 Cromer & Sullivan Constr. Co., Anderson, S. C. (32a)
 Cropp, E. H., Constr. Co., Mobile, Ala. (1a)
 Crosby Constr. Co., Inc., Union, S. C. (32a)
 Crosland Constr. Co., Columbia, S. C. (32a)
 Cross, E. J., Company, Worcester, Mass. (L)
 Cross, Jas. P., New Iberia, La. (23a)

A.G.C. DIRECTORY

Crossin Contr. Co., Houston, Texas (42d)
 Crossman-McCoy, Inc., Sodus, Mich. (21c)
 Crouch, M. G., Lumber Co., Hickory, N. C. (32a)
 Crouch, Robt. C., & Co., Memphis, Tenn. (41c)
 Crow, Fount, Beaver Dam, Ky. (16a)
 Crow, L. A. & R. S., El Monte, Calif. (4d)
 Crow, Wm. L., Constr. Co., New York City (31c)
 Crowder Constr. Co., Charlotte, N. C. (32a)
 Crowder, J. W., & Assocs., Houston, Texas (42d)
 Crowell, Wm. C., Co., Pasadena, Calif. (4d)
 Crumley, Jones & Crumley Co., The, Deer Park, Ohio (34b)
 Crump, Edw., Jr., Inc., Pittsburgh, Pa. (37b)
 Crumpecker, Wm., & Sons, Morehouse, Mo. (23a)
 Cucchiara Bros., Inc., Hammond, La. (17d)
 Cullen, J. P., & Son, Janesville, Wis. (48b)
 Cullinan, R. A., & Son, Tremont, Ill. (12c)
 Cullum, W. G., & Co., Dallas, Texas (42j)
 Culwell, Haskell, Constr. Co., Oklahoma City, Okla. (35a)
 Cumberland Contr. Co., The, Cumberland, Md. (19b)
 Cummings, H. P., Constr. Co., Ware, Mass. (L)
 Cummings, S. A., Compton, Calif. (4d)
 Cummins, F. I., Constr. Co., Sioux Falls, S. Dak. (40a)
 Cummins, H. E., & Sons, Enid, Okla. (35a)
 Cummins, J. F., Burbank, Calif. (4d)
 Cump, Earl L., Chambersburg, Pa. (37a)
 Cunliff, Wm. H. & Nelson, Co., St. Louis, Mo. (24c)
 Cunningham, A. J., & Sons, Trenton, N. J. (20a)
 Cunningham Bros., Inc., Beloit, Wis. (48b)
 Cunningham, Chas. I., Co., Oakdale, Calif. (4b)
 Cunningham, F. W., & Sons, Portland, Me. (18a)
 Cunningham-Reis Co., Des Moines, Iowa (14a)
 Cunningham, T. W., Inc., Bangor, Me. (18a)
 Cunningham-Waters Constr. Co., Inc., Greer, S. C. (32a)
 Cuppels, F. J., Kingston, Pa. (37a)
 Curlett Constr. Co., Long Beach, Calif. (4d)
 Curphy, Bill, Co., Des Moines, Iowa (14a)
 Curran, Kenneth E., Inc., Littleton, N. H. (28a)
 Currie, Thos. E., Co., The, Detroit, Mich. (21a) (21c)
 Curry, I. C., San Diego, Calif. (4c)
 Curtis Gravel Co., Spokane, Wash. (46c)
 Curtis-Pethick Co., The, Wilkes-Barre, Pa. (37a)
 Cutshall, J. M., & Son, Brazil, Ind. (13b)
 Cypher, C. L., Napa, Calif. (4b)

D

D & H Constr. Co., Dallas, Texas (42f)
 D-H Paving Co., Vancouver, Wash. (36a)
 Dahl-Stedman Co., Chicago, Ill. (12a)
 Dahlberg, S. A., Mercer Island, Wash. (45a)
 Dahlgren & Brooks, Oklahoma City, Okla. (35b)

Dahlgren Constr. Co., Seattle, Wash. (46b)
 Dahlman Constr. Co., Milwaukee, Wis. (48a)
 Dahms, O. R., Constr. Co., Sacramento, Calif. (4b)
 Dailey, H. A., Inc., St. Louis, Mo. (24c)
 Dailey & Holifield, San Antonio, Texas (42f)
 Dailey, L. W., Constr. Co., Fort Wayne, Ind. (13a)
 Dailey, Wm. E., North Bennington, Vt. (28a)
 Dale Engr. Co., Utica, N. Y. (31d)
 Dale, W. E., Constr. Co., Morganton, N. C. (32a)
 D'Alessio Constr. Co., Akron, Ohio (34a)
 Daley Constr.-Acme Materials Co., Phoenix, Ariz. (2a)
 Daley Corp., San Diego, Calif. (4c)
 Daley, Morris, Burlingame, Calif. (4a)
 Dalon Contr. Co., Inc., Atlanta, Ga. (10a)
 Dalton Constr. Co., Joplin, Mo. (15a)
 Dalton, E. L., & Co., Ltd., Dallas, Texas (42j)
 Dan Bar Contr. Co., Inc., Syracuse, N. Y. (31d)
 Dangel's, David, Sons, Wilmington, Del. (7a)
 Daniel, Carroll, Constr. Co., Gainesville, Ga. (10a)
 Daniel Constr. Co., Inc., Birmingham, Ala. & Greenville, S. C. (1a) (32a)
 Daniel, John W., & Co., Inc., Danville, Va. (45a)
 Daniel Lumber Co., La Grange, Ga. (10a)
 Daniels, E. L., Arlington, Va. (8a)
 Daniels, O. B., & Son, Seattle, Wash. (46b)
 Daniels Transportation Co., Lebanon, N. H. (28a)
 Danis, B. G., Co., Dayton, Ohio (34b)
 Danville Constr. Co., Danville, Ill. (12c)
 Darby, E. B., Co., Pharr, Texas (42f)
 Darby, Mitchell, Constr. Co., McAllen, Texas (42j)
 Darin & Armstrong, Inc., Detroit, Mich. (21a) (21c)
 Darling, Herbert F., Williamsville, N. Y. (31a)
 Darlington Constr. Co., Inc., Darlington, S. C. (32a)
 Darner, Phil, Ottumwa, Iowa (14b)
 da Roza Ribal, Inc., Dutch Flat, Calif. (4b)
 Darrough, W. H., & Sons, Yuba City, Calif. (4b)
 Dasta, Sam, & Son Constr. Co., Kansas City, Mo. (24a)
 Date, H. G., Cordova, Alaska (50a)
 Datema, Geo., & Sons, Grand Rapids, Mich. (21b)
 Daugette, F. R., Birmingham, Ala. (1a)
 Daugherty & Waters, Knoxville, Tenn. (41b)
 Daum-Donaldson Constr. Co., Phoenix, Ariz. (2a)
 Daum, R. J., Constr. Co., Inglewood, Calif. (4d)
 Davenport, A. W., & Assocs., Inc., Richmond, Va. (45a)
 Davey, Ben O., Las Vegas, Nev. (27b)
 Davey & Moen, Mason City, Iowa (14b)
 David, E. F., House Moving Co., St. Louis, Mo. (24c)
 Davidson, C. F., Co., Tacoma, Wash. (46d)
 Davidson, Forest R., Constr. Co., Norton, Kans. (15a)
 Davidson, Joe, Terrell, Texas (42f)

Davidson, L. A., Lansing, Mich. (21c)
 Davidson, M. J., St. Louis, Mo. (24b)
 Davies, John R., & Son, Los Angeles, Calif. (4d)
 Davies, Keusder & Brown, Los Angeles, Calif. (4d)
 Davis, Ben H., Salt Lake City, Utah (43a)
 Davis, C. C., Constr. Co., New Cumberland, Pa. (37a)
 Davis Constr. Co., Hicksville, N. Y. (31d)
 Davis Constr. Co., Corpus Christi, Texas (42i)
 Davis Constr. Co., Inc., Boonville, Mo. (24b)
 Davis Constr. Co., The, Baltimore, Md. (19a)
 Davis, E. L., Co., Beaufort, N. C. (32a)
 Davis, F. B., Sons, Philadelphia, Pa. (37d)
 Davis, O. B., Constr. Co., Chattanooga, Tenn. (41a)
 Davis & Platt, Inc., Washington, D. C. (8a)
 Davis, R. H., Stamps, Ark. (3a)
 Davis, T. H., Mobile, Ala. (1a)
 Davis, Wick, Rosengarten Co., Inc., Washington, D. C. (8a)
 Davison Constr. Co., Manchester, N. H. (28a)
 Davison, David W., Manchester, N. H. (28a)
 Dawkins, C. T., Tampa, Fla. (9c)
 Dawson Constr. Co., Bellingham, Wash. (46a)
 Dawson, R. R., Bloomfield, Ky. (16a)
 Day & Zimmermann, Inc., Philadelphia, Pa. & Indian Head, Md. (8a) (37d)
 Deal, H. B., & Co., Inc., St. Louis, Mo. (24c)
 Dean Constr. Co., Minneapolis, Minn. (22a)
 Deane, B. C., & Gunther & Shirley Co., Van Nuys, Calif. (4d)
 DeBolt Constr. Co., Inc., Richmond, Ind. (13a)
 DeBuse Bros., Inc., Irvington, Nebr. (26a)
 DeBusk, Kelly S., Jr., Austin, Texas (42k)
 DeFelice, L. G., & Son, Inc., North Haven, Conn. (37c)
 Degerstrom, N. A., Spokane, Wash. (46c)
 deGive-Dunham & O'Neill, Atlanta, Ga. (10a)
 DeGraff, Henry, & Son, Miami, Fla. (9b)
 Dehner, John, Inc., Fort Wayne, Ind. (13a)
 Deigaard & Preston Bldrs., Inc., Coral Gables, Fla. (9b)
 de Koning, Henry, Constr. Co., Ann Arbor, Mich. (21b)
 DeLashmutt Bros., Inc., Arlington, Va. (45a)
 DeLia, Elis G., & Co., New Hartford, N. Y. (31d)
 Delk, W. B., High Point, N. C. (32a)
 Dellinger, J. M., Inc., Corpus Christi, Texas (42f)
 DeLong, C. L., Nebraska City, Nebr. (26b)
 Delphia, John, Patterson, Calif. (4b)
 Delta Constr. Co., Rio Vista, Calif. (4b)
 Delta Constr. Co., Waycross, Ga. (10a)
 Delta Constr. Co., Hopedale, N. J. (29a)
 Delta Constr. Co., Inc., Durham, N. C. (32a)
 DeLuca Constr. Co., Akron, Ohio (34a)
 De Luca & Son, San Francisco, Calif. (4a)
 Dement, Ivan, Amarillo, Texas (42f)
 Demshar Bldrs. Co., Inc., Cleveland, Ohio (34c)
 Dennehy Constr. Co., Oklahoma City, Okla. (35a)
 Denni Corp., Wilmington, Calif. (4d)
 Dennis, G. D., & Sons, Portland, Oreg. (36a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Dennis, V. R., Constr. Co., San Diego, Calif. (4c)
 Denny, Dale, Constr. Co., Anna, Ill. (12c)
 Dent, Jas. B., Houston, Texas (42d)
 Denton Constr. Co., Detroit, Mich. (21a) (21c)
 Denver Bldrs., Inc., Denver, Colo. (5a)
 Depew Paving Co., Inc., Depew, N. Y. (31d)
 Derby Constr. Co., Inc., Louisville, Ky. (16b)
 DeRuyter Bros., Willmar, Minn. (22a)
 Desert Development, Inc., Las Vegas, Nev. (27b)
 Des Moines Steel Co., Des Moines, Iowa (14a)
 De Stigter Bros., Sioux Center, Iowa (14b)
 Dethlefs & Hannon, Anniston, Ala. (1a)
 Detroit Asphalt Paving Co., Detroit, Mich. (21c)
 Detroit Concrete Prods. Corp., Detroit, Mich. (21c)
 Detweiler Bros., Inc., Twin Falls, Idaho (11a)
 Devine, R. P., Watseka, Ill. (12c)
 Devoss Bros., Grand Island, Nebr. (26b)
 Dew Constr. Co., Tyler, Texas (42f)
 DeWitt Co., The, Tulsa, Okla. (35a)
 Diamond Engr. Co., Dallas, Texas (42j)
 Di Biase, C. Co., Inc., Portland, Me. (18a)
 Di Ciccio, Philip, Constr. Co., Poland, Ohio (34f)
 Dick Constr. Co., Pittsburgh, Pa. (37b)
 Dickerson & Bowen, Brookhaven, Miss. (17e)
 Dickerson, G. W., San Antonio, Texas (42j)
 Dickerson, Inc., Monroe, N. C. (32a)
 Dickie Constr. Co., St. Louis, Mo. (24c)
 Dickson, Lige, Co., Tacoma, Wash. (46d)
 Diekema, Dick, Constr., Inc., Albert Lea, Minn. (22a)
 Dienst, Robt. J., Columbus, Ohio (34d)
 Diesch Constr., Waterloo, Iowa (14a)
 Diesel Oil Sales Co., Seattle, Wash. (46a)
 Dieseth, John, Co., Fergus Falls, Minn. (22a) (33a)
 Dieterich, Clarence, Co., Reno, Nev. (27a)
 Dillard, J. E., Bessemer, Ala. (1a)
 Dillard, J. E., & Sons, Bessemer, Ala. (1a)
 Dillard, Wm. B., Constr. Co., Inc., Sylva, N. C. (32a)
 Dillsworth & Punnea, Helena, Mont. (25a)
 Dilschneider, Ray M., Inc., St. Louis, Mo. (24c)
 Dimeo Constr. Co., Providence, R. I. (38a)
 Dimmitt Constr. Co., Shenandoah, Iowa (14b)
 Dimmitt & Taylor, Monrovia, Calif. (4d)
 Dinardo, Inc., Pittsburgh, Pa. (37c)
 Dinwiddie Constr. Co., Inc., San Francisco, Calif. (4a)
 DiSabatino & Raniere, Wilmington, Del. (7a)
 Ditmars-Dickmann-Pickens Constr. Co., Little Rock, Ark. & Muskogee, Okla. (3a) (35a)
 Diulus Constr. Co., Inc., Pittsburgh, Pa. (37c)
 Dixon Bros. Co., Correctionville, Iowa (14a)
 Dixon Constr. Co., Fayetteville, N. C. (32a)
 Dixon, L. E., Co., San Gabriel, Calif. (4d)
 Dixon, S. M., Warren, Ark. (3a)
 Dobson Bros. Constr. Co., Lincoln, Nebr. (15b) (26b) (14a)
 Dobson & Robinson, Lincoln, Nebr. (26b)
 Dodds & Wedegartner, Inc., San Benito, Texas (42f)
 Dodge Constr., Inc., Fallon, Nev. (27a)
 Doerfler Constr. Co., Oklahoma City, Okla. (42j)
 Dolph Constr. Co., Inc., Dallas, Texas (42a)
 Domenick, Frank, & Co., Inc., Newark, N. J. (29a)
 Donahoo, A. G., Contr. Co., Birmingham, Ala. (1a)
 Donahoo, H. N., Birmingham, Ala. (1a)
 Donahue, E. J., Salinas, Calif. (4a)
 Donatelli, Frank, Co., Inc., Pittsburgh, Pa. (37c)
 Dondlinger & Sons Constr. Co., Wichita, Kans. (15a)
 Donnellan, G. P., Atlanta, Ga. (10a)
 Donnelly, I. J., Constr. Co., St. Paul, Minn. (22a)
 Doodlitz Constr. Co., Seattle, Wash. (46a)
 Doran, A. L., Constr. Co., Peru, Ind. (13b)
 Dorland, E. H., Constr. Co., Salt Lake City, Utah (43a)
 Dotterer Engr. Co., Charleston, S. C. (32a)
 Doty Bros., Bellflower, Calif. (4d)
 Dougherty, A. L., Co., Indianapolis, Ind. (31d)
 Dougherty, C. J., & Sons, Inc., Wilmington, Del. (7a)
 Dougherty-Liddell Constr. Co., Memphis, Tenn. (41c)
 Douglas Bros., Inc., Topeka, Kans. (15b)
 Douglas Constr. Co., Topeka, Kans. (15a)
 Douglas, Damon G., Co., Newark, N. J. (L)
 Douglass & Woodhouse, Redwood City, Calif. (4b)
 Dow Constr. Co., Houston, Texas (42d)
 Dowell, L. J., Inc., Seattle, Wash. (46a)
 Dowling Constr. Co., Williamstown, W. Va. (47a)
 Downer Co., Inc., Stockton, Calif. (4b)
 Doyle & Russell, Richmond, Va. (45a)
 Drainage Contrs., Inc., Dearborn, Mich. (21c)
 Drake, Donald M., Co., Portland, Oreg. (36a) (36b)
 Drake Puget Sound, Alaska Div., Kodiak, Alaska (50a)
 Drape Constr. Co., Waverly, Iowa (14b)
 Draper, Archie, Red Bluff, Calif. (4b)
 Dravo Corporation, The Contracting Division, Pittsburgh, Pa. (N) (37c) (47a)
 Dreher & Beaulieu, Richmond, Calif. (4b)
 Dreier & Son Constr. Co., Kansas City, Kans. (24a)
 Drescher Co., Milwaukee, Wis. (48a)
 Drew, Jas. H., Corp., Indianapolis, Ind. (13b)
 Driscoll, Geo. F., Co., New York City (31c)
 Driver, C. W., Inc., Los Angeles, Calif. (4d)
 Driver Contr. Co., The, Memphis, Tenn. (23a)
 Dudley Constr. Co., Great Falls, Mont. (25b)
 Duesenberg, E. M., Inc., Clear Lake, Iowa (14a)
 Duffey Constr. Co., Inc., Miami, Fla. (9b)
 Duffy Constr. Co., Cleveland, Ohio (34c) (37c)
 Duffy, Warren C., Nampa, Idaho (11a)
 Dugdale Constr. Co., Omaha, Nebr. (26b)
 Duhamel, Elmer W., Constr. Co., Phoenix, Ariz. (2a)
 Duinick Bros. & Gilchrist, Olivia, Minn. (22a)
 DuLaney, P. F., Washington, D. C. (8a)
 Dunbar Co., The, Cleveland, Ohio (34c)
 Duncan, Horace O., Fort Worth, Texas (42c)
 Duncanson-Harrelson Co., The, Richmond, Calif. (4b)
 Dunkin, W. R., & Son, Anderson, Ind. (13b)
 Dunlap & Co., Inc., Columbus, Ind. (13b)
 Dunlop & Johnston, Inc., Cleveland Heights, Ohio (34c)
 Dunn-Baskin & Dunn, Memphis, Tenn. (41c)
 Dunn Constr. Co., Inc., Birmingham, Ala. (1a)
 Dunn, H. J., Black Top Surfacing Co., Winona, Minn. (22a)
 Dunn, J. E., Constr. Co., Kansas City, Mo. (24a)
 Dunn, J. M., & Son, Knoxville, Tenn. (41b)
 Dunn, Louis C., Inc., San Francisco & Los Angeles, Calif. (4a) (4d)
 Dunn, W. G., Greenville, N. C. (32a)
 Dunning, Chas. M., Constr. Co., Oklahoma City, Okla. (35a)
 Dupree, Henry G., Jacksonville, Fla. (9a)
 Durell, E. Clifford, & Son, Inc., Philadelphia, Pa. (37d)
 Durham Elec. Constr. Co., Inc., Durham, N. C. (32a)
 Durrett, Jack, Keota, Okla. (35b)
 Dutcher Constr. Corp., Queenstown, Md. (19b) (31d)
 Duval Engr. & Contr. Co., Jacksonville, Fla. (9a)
 Duvall, P. K., Inc., Logan, Iowa (14a)
 Dwan Constr. Co., Dorchester, Mass. (20b)
 Dwight Bldg. Co., The, New Haven, Conn. (6a)
 Dye & Mullings, Inc., Columbia, Miss. (23b)
 Dyer, A. L., & Sons, McBrides, Mich. (21c)
 Dyer, Hal C., Dallas, Texas (42a)
 Dyson & Co., Pensacola, Fla. (9d)
 Dyson, F. A., Sanford, Fla. (9f)

E

- E. & F. Constr. Co., Inc., The, Bridgeport, Conn. (6a)
 Eady, Geo. M., Co., Louisville, Ky. (16b)
 Eagle Contrs. of Utica, Inc., Utica, N. Y. (31d)
 Eames Tree Expert Co., Plainfield, N. J. (29a)
 Eargle, H. L., Constr. Co., Columbia, S. C. (32a)
 Earle & Merry, Inc., Rutland, Vt. (28a)
 Earley, Roy T., Co., Tacoma, Wash. (36a) (46d)
 Early, Fred J., Jr. Co., Inc., San Francisco & Torrance, Calif. (4a) (4d)
 East Carolina Constr. Co., Dunn, N. C. (32a)
 East Coast Constr. Co., Jacksonville, Fla. (9a)
 East Shore Asphalt Paving Co., Alpena, Mich. (21c)
 Eastern Constr. Co., Rocky Mount, N. C. (32a)
 Eastern Pipeline Contrs., Dallas, Texas (42m)
 Easton Constr. Co., Ames, Iowa (14a)
 Eaton, L. W., Co., Inc., Baton Rouge, La. (17d)
 Eaton & Smith, San Francisco, Calif. (4b)
 Ebbe Constr. Co., Trenton, Mo. (24a)
 Ebeling, Robt. M., Constr. Co., Wheeling, W. Va. (47a)
 Eblen, Orville, Atlantic, Iowa (14a)

A.G.C. DIRECTORY

- Eby, Martin K., Constr. Co., Inc., Wichita, Kans. (15a)
- Eckert-Fair Constr. Co., Dallas, Texas (42a)
- Eckman, Chas. A., Co., Wilmington, Del. (7a)
- Eddleman, C. C., Philadelphia, Pa. (37d)
- Edgeworth Constr. Co., Corpus Christi, Texas (42i)
- Edison, L. W., Grand Rapids, Mich. (21c)
- Edlisen-Weygandt Co., Canby, Oreg. (36a)
- Edmir Constr. Co., Inc., Charleston, W. Va. (47a)
- Edson, R. C., Storm Lake, Iowa (14b)
- Edwards, J. C., Orangeburg, S. C. (32a)
- Edwards, Jas. J., San Carlos, Calif. (4b)
- Edwardsville Constr. Co., Edwardsville, Ill. (12c)
- Ehorn, Liston, Red Bluff, Calif. (4a)
- Ehrhart & Arthur, Inc., Los Angeles, Calif. (4d) (4b)
- Eian & Ness, Fergus Falls, Minn. (22a)
- Eichleay Corp., Pittsburgh, Pa. & Mountain View, Calif. (4b) (37b) (37c)
- Eickhof, Otto J., & Sons, Inc., Crookston, Minn. (22a)
- Eidemiller, Adam, Greensburg, Pa. (37c)
- Eidson Constr. Co., Mocksville, N. C. (32a)
- Eiford Constr. Co., Bellingham, Wash. (46b)
- Eiland, Edw. H., Tallulah, La. (17g)
- Eiland, Jas. A., Jr., Bunkie, La. (17f)
- Eisele, John H., Co., Inc., New York City (31c)
- Eisenberg, Eugene R., Inc., Boston, Mass. (20b)
- Eisenhauer, E., Corpus Christi, Texas (42i)
- Eisenhour Constr. Co., East Lansing, Mich. (21c)
- Eitz-Kitchens Constr. Co., Austin, Texas (42k)
- Ekdahl, Hilding, Ft. Dodge, Iowa (14a)
- Elam Constr. Co., St. Louis, Mo. (24c)
- Elder Constr. Co., Denver, Colo. (5a)
- Eldridge Constr. Co., Kansas City, Kans. (24a)
- Eldridge Constr. Co., Enid, Okla. (35a)
- Elford, E., & Son, Inc., Columbus, Ohio (L)
- Ellard Constr. Co., Inc., Birmingham, Ala. (1a)
- Ell-Dorer Constr. Co., Irvington, N. J. (29a)
- Ellington, Thos., San Francisco, Calif. (4a)
- Ellington-Miller Co., Chicago, Ill. (12a)
- Elliott Bros., Inc., Perry, Okla. (35b)
- Elliott Bldg. Co., Hickory, N. C. (32a)
- Elliott, Hiram, Constr. Co., Kansas City, Mo. (24a)
- Elliott, W. J., McConnelville, Ohio (34d)
- Ellis Constr. Co., Ephrata, Wash. (46c)
- Ellis, G. W., Constr. Co., North Hollywood, Calif. (4d)
- Ellis-Thompson Constr. Co., Inc., Tampa, Fla. (9c)
- Ellis, Wm. H., & Son Co., East Boston, Mass. (20a)
- Ellison Constr. Co., Carthage, Ill. (12c)
- Elmhurst Constr. Co., Inc., Corona, L. I., N. Y. (31d)
- Elmore Constr. Co., Catawba, N. C. (32a)
- El Rio Rock Co., Ventura, Calif. (4d)
- Ely, I. J., Co., San Anselmo, Calif. (4b)
- Elzinga & Volkers, Holland, Mich. (21b)
- Emco Constr. Co., Algona, Iowa (14a)
- Emerson, Sam W., Co., The, Cleveland, Ohio (34c)
- Emme, H. F., Constr. Co., Rapid City, S. Dak. (40a)
- Emory & Richards, Knoxville, Tenn. (41b)
- Empire Constr. Co., Englewood, Colo. (5a)
- Empire Constr. Co., Portland, Oreg. (36a)
- Empire Constr. Co., The, Baltimore, Md. (19b)
- Emsco Concrete Cutting Co. of Los Angeles, Los Angeles, Calif. (4d)
- Emsco of San Francisco, San Francisco, Calif. (4a) (4b)
- Emtman, Eric W., Riverside, Calif. (4d)
- Endebrock-White Co., Hilton Village, Va. (45a)
- Engbrock Constr. Co., Houston, Texas (42d)
- Engineered Fixture Systems, Mountain View, Calif. (4b)
- Engineering Constr. Corp., Chicago, Ill. (12a)
- Engineers, Ltd., San Francisco & Los Angeles, Calif. (4a) (4d)
- Engineers Ltd. Pipeline Co., San Francisco, Hawthorne & El Cerrito, Calif. & Denver, Colo. (4b) (5b) (42m) (4d)
- England & Roth Constr. Co., Rapid City, S. Dak. (40a)
- English Constr. Co., Altavista, Va. (45a)
- English, Frank C., & Sons, Philadelphia, Pa. (37d)
- English, N. F., Constr. Co., Inc., Hutchinson, Kans. (15a)
- Epperson & Co., Sumner, Iowa (14b)
- Erbentraut & Summers, San Francisco, Calif. (4a)
- Erickson, Al. & Co., Napa, Calif. (4b)
- Erickson Constr. Co., Assaria, Kans. (15b)
- Erickson Constr. Co., North Sacramento, Calif. (4a)
- Erickson Paving Co., Seattle, Wash. (46a)
- Erickson, Phillips & Weisberg, Oakland, Calif. (4b)
- Ericsson, Henry, Co., Chicago, Ill. (12a)
- Erie Contr. & Engr. Corp., Passaic, N. J. (29a)
- Erland & Bickle, Portland, Oreg. (36a)
- Ernest Asphalt Sales Co., St. Louis, Mo. (12c)
- Ernest Constr. Co., Inc., Mobile, Ala. (1a)
- Ertz, John, Constr. Co., Oklahoma City, Okla. (35b)
- Erwin, R. A., Colton, Calif. (4d)
- Esch Constr. Co., Cleveland, Ohio (34c)
- Escherich Bros., Inc., Los Angeles, Calif. (4d)
- Esslinger, Wm., Constr. Co., Detroit, Mich. (21a)
- Eure, N. F., Beaufort, N. C. (32a)
- Evans, A. N., Columbus, Texas (42d)
- Evans Constr. Co., Springfield, Ill. (L)
- Evans, Geo. H., & Co., Philadelphia, Pa. (37d)
- Evans, J. C., Austin, Texas (42k)
- Evans, S. E., Constr. Co., Fort Smith, Ark. (3a) (35b)
- Evans & Taylor, San Angelo, Texas (42p)
- Everts Bros., Algona, Iowa (14a)
- Everetts & Kelso, Jamestown, N. Dak. (33a)
- Evert, S. H., Co., Inc., Bloomsburg, Pa. (37a)
- Ewell Engr. & Contr. Co., Lakeland, Fla. (9c)
- Ewin Engr. Corp., Mobile, Ala. (1a)
- Excavators, Inc., Seattle, Wash. (46a)
- Eyring, E., & Sons Co., Baltimore, Md. (19a)

F

- F & F Material & Constr. Co., New Iberia, La. (17f)
- F & S Contr. Co., Butte, Mont. (25a)
- Fadel, Norman I., North Hollywood, Calif. (4d)
- Fagre Constr. Co., Estherville, Iowa (14b)
- Fahney, John D., & Son, Inc., Waynesburg, Pa. (42m)
- Fairfield Trucking Co., Fairfield, Calif. (4b)
- Falasco, Ted, Los Banos, Calif. (4a)
- Falk, L. R., St. Ansgar, Iowa (14a)
- Famularo, A. H., Santa Ana, Calif. (4d)
- Farina Bros., Newton, Mass. (20b)
- Farish, Robt. A., San Francisco, Calif. (4b)
- Farley, L. E., Inc., Houston, Texas (42m)
- Farmer & Godfrey, Phoenix, Ariz. (2a)
- Farnsworth & Chambers Co., Inc., Houston, Texas & New Orleans, La. (17a) (42a) (42d) (42f)
- Farnsworth, R. P., & Co., Inc., Baton Rouge & New Orleans, La. & Beaumont, Texas (17a) (17d) (17e) (42b)
- Farquhar, Neelley B., Corpus Christi, Texas (42f)
- Farr, R. T., Angleton, Texas (42f)
- Farrell Constr. Co., St. Paul, Minn. (22a)
- Farrell, Jos. R., Philadelphia, Pa. (37d)
- Farrow, E. E., Co., Dallas, Texas (42j)
- Fascitelli, S., Burlington, Vt. (28a)
- Fatout Bldg. Co., The, Indianapolis, Ind. (13b)
- Fauber Constr. Co., Inc., Lafayette, Ind. (13a)
- Faulkner Constr. Co., Ferndale, Mich. (21a)
- Favret, Lionel F., Co., Inc., New Orleans, La. (17a)
- Favrot, Gervais F., Co., New Orleans, La. (17a)
- Fay Improvement Co., San Francisco, Calif. (4b)
- Fazio, Walter E., Sacramento, Calif. (4b)
- Federal Constrs., Inc., Chicago, Ill. (12a)
- Feeney Constr. Co., St. Joseph, Mo. (24b)
- Fegles Constr. Co., Ltd., Minneapolis, Minn. (17a) (22a)
- Feigl Constr. Corp., Evansville, Ind. (13a) (13c)
- Fell & Anton, Waterloo, Iowa (14b)
- Feller, L. M., Co., Rochester, Minn. (22a)
- Felmley-Dickerson Co., Bloomington, Ill. (L)
- Ferguson Bros., Oakland, Calif. (4b)
- Ferguson Corp., Hampton, Va. (45a)
- Ferguson-Diehl, Inc., Jefferson, Iowa (14a)
- Ferguson & Edmondson Co., Pittsburgh, Pa. (37c) (47a)
- Ferguson, H. K., Co., The, Cleveland, Ohio & Houston, Texas (34c) (42d)
- Ferguson, H. S., Co., Seattle, Wash. (46b)
- Ferrante, Anthony, & Son, Inc., Bernardsville, N. J. (29a)
- Ferris Co., The, Mason, Mich. (21c)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Ferro Concrete Constr. Co., Cincinnati, Ohio (34b)
- Ferry Constr. Co., Atlantic City, N. J. (29a)
- Ferry, Peter L., & Son, Glendale, Calif. (4d)
- Fessler, Frank, Salina, Kans. (15a)
- Feutz, Frank C., Co., Paris, Ill. (12c)
- Field, C. O., Co., Minneapolis, Minn. (22a)
- Fielding & Shepley, Inc., St. Paul, Minn. (22a) (46a)
- Fielland, C. A., Inc., Tampa, Fla. (9c)
- Findorff, J. H., & Son, Inc., Madison, Wis. (48b)
- Fine, W. M., Spartanburg, S. C. (32a)
- Finson & Oddstad, Inc., Daly City, Calif. (4a)
- Fiorito Bros., Seattle, Wash. (46a)
- Fiorito, N., Co., Seattle, Wash. (46a)
- Fisher, Alfred P., San Francisco, Calif. (4a)
- Fisher, Claude, Co., Ltd., Los Angeles, Calif. (4d)
- Fisher Constr. Co., Houston, Texas (42d)
- Fisher Constr. Co., Phoenix, Ariz. (2a)
- Fisher-DeVore Constr. Co., Cincinnati, Ohio (34b)
- Fisher, J. M., Norman, Okla. (35b)
- Fisher, L. S., Woodward, Okla. (35b)
- Fisher, O. B., & Sons, Logan, W. Va. (47a)
- Fiske-Carter Constr. Co., Spartanburg & Greenville, S. C. (32a)
- Fitch-Eva Co., The, Howell, Mich. (21c)
- Fitchett, Leslie, & Son, Merced, Calif. (4a)
- Fitzgerald Bros. Constr. Co., Inc., Troy, N. Y. (31d)
- Fitzgerald Engr. & Constr. Co., Los Angeles, Calif. (4d)
- Fitzmaurice, J. H., Oakland, Calif. (4a)
- FitzSimons & Connell Dredge & Dock Co., Chicago, Ill. (12a)
- Flagler Co., The, Atlanta, Ga. (10a)
- Flanders Constr. Co., Houston, Texas (42d)
- Flaten, Ole, Minot, N. Dak. (33a)
- Fleisher Engr. & Constr. Co., Minneapolis, Minn. (22a)
- Fleming Co., Philadelphia, Pa. (37d)
- Fleming, Edw. M., Constr. Co., Miami, Fla. (9b)
- Fleming & Kilgo Constr. Co., East Alton, Ill. (12c)
- Flenniken Constr. Co., Shreveport, La. (17c)
- Fletemeyer, F. R., Detroit, Mich. (21a)
- Flett Constr. Co., Kansas City, Mo. (24a)
- Flickinger, D. A., Phoenix, Ariz. (2a)
- Flinn Paving Co., Omaha, Nebr. (14a)
- Flint Bros. Constr. Co., Jackson, Miss. (23b)
- Fluor Bros. Constr. Co., Oshkosh, Wis. (48b)
- Fluor Corp., Ltd., The, Los Angeles, Calif. (4d)
- Flynn Constr. Co., Detroit, Mich. (21c)
- Flynn, Jos. P., Providence, R. I. (38a)
- Foard, Edison, Charlotte, N. C. (32a)
- Foard, Ernest, Charlotte, N. C. (32a)
- Focht, L. H., & Son, Inc., Reading, Pa. (37a)
- Fogel Constr., Inc., Kansas City, Mo. (24a)
- Fogelberg, O. A., Lafayette, Calif. (4b)
- Foley Brothers, Inc., St. Paul, Minn. (22a)
- Foley Brothers, Inc., Pleasantville, N. Y. (N)
- Foley Constr. Co., Albert Lea, Minn. (22a)
- Foley Constr. Co., Cincinnati, Ohio (34b)
- Foley, Robt. E., Constr. Corp., Binghamton, N. Y. (31d)
- Folsom Constr. Co., Denver, Colo. (5a)
- Fontana, D. M., Wilmington, Del. (7a)
- Forbes Constr. Co., Inc., Huntington, W. Va. (47a)
- Forcum-James Co., Dyersburg, Tenn. (N) (23a)
- Ford, Bacon & Davis Construction Corp., Monroe, La. & New York, N. Y. (N) (17g)
- Ford Constr. Co., Janesville, Wis. (48b)
- Ford, E. Paul, San Diego, Calif. (4c)
- Ford, R. W., Marion, Ill. (12c)
- Forde, E. A., Co., San Anselmo, Calif. (4b)
- Fordice Constr. Co., Memphis, Tenn. (23a)
- Foreman, C. S., Co., North Kansas City, Mo. (24b) (42m)
- Forest City Improvement Co., Forest City, Iowa (14b)
- Forgy Constr. Co., San Antonio, Texas (42c)
- Fors, Carl S., Co., Murray, Utah (43a)
- Forsgren Bros., Fort Smith, Ark. (3a)
- Forster, A. J., Paola, Kans. (15b)
- Fortuna Constr. Co., Fortuna, Calif. (4b)
- Fortunato, Rocco, & Sons, Youngstown, Ohio (34f)
- Foshee, D. O., Inc., Jacksonville, Fla. (9a)
- Foss, C. R., Inc., Anchorage, Alaska (50a)
- Foster & Bamford, Inc., Concord, N. H. (28a)
- Foster Bros., Port Arthur, Texas (42h)
- Foster & Creighton Co., Nashville, Tenn. (41d)
- Foster, H. B., Port Arthur, Texas (42h)
- Foster, J. M., & Co., Gary, Ind. (13b)
- Foster, Karl B., Flint, Mich. (21b)
- Foster, M. H., Constr. Co., Inc., Tampa, Fla. (9c)
- Foster & McHarg, Marysville & Riverside, Calif. (4d) (4b)
- Foster Schermerhorn Foster, Inc., Lansing, Mich. (21b)
- Foster-Smetana Co., Omaha, Nebr. (26a)
- Foster, W. A., Constr. Co., Burlington, N. C. (32a)
- Four Bros., Inc., Sweet Home, Ark. (3a)
- Fowler, C. Wayne, Pipe Line Contr., Inc., Cotton Valley, La. (42m)
- Fowler-Jones Constr. Co., Winston-Salem, N. C. (32a)
- Fowler-Veranth Constr. Co., Duluth, Minn. (22a)
- Fox, A. T., North Bend, Oreg. (36a)
- Fox, Delton T., Bridgeton, N. J. (29a)
- Fox & Fox, St. Petersburg, Fla. (9c)
- Fox, H. H., Constr. Co., Kansas City, Mo. (24a)
- Fox Valley Constr. Co., Appleton, Wis. (21c)
- France, Geo. E., Inc., Visalia, Calif. (4b)
- Francies Constr. Co., Santa Rosa, Calif. (4b)
- Frank, D. T., Constr. Co., East Lansing, Mich. (21c)
- Frank, J. S., Salina, Kans. (15a)
- Frank, P. L., Constr. Co., Ravenna, Ohio (34a)
- Frankenfeld Constr. Co., Winfield, Kans. (15a)
- Franklin Asphalt Co., Benton, Ill. (12c)
- Franklin Constr. Co., Newark, N. J. (29a)
- Frantz Constr. Co., The, Baltimore, Md. (19a)
- Frapaul Constr. Co., Rochelle Park, N. J. (29a)
- Fraser, Carlisle G., St. Paul, Minn. (22a)
- Fraser Constr. Co., Inc., Fort Smith, Ark. (3a)
- Frazier Constr. Co., Inc., Greenville, Miss. (23d)
- Frazier-Davis Constr. Co., St. Louis, Mo. (24c)
- Frazier-Davis Constr. Co., Morgantown, Pa. (37a)
- Fredericksen & Kasler, Sacramento, Calif. (4b)
- Frederickson-Parks, Inc., Oklahoma City, Okla. (35a)
- Fredman, J. A., Pontiac, Mich. (21a)
- Fredrickson Bros., Emeryville, Calif. (4b)
- Fredrickson & Watson Constr. Co., Oakland, Calif. (4b)
- Freeland Constr. Co., Pittsburgh, Pa. (37c)
- Freeland, Jack, & Co., San Antonio, Texas (42f)
- Freeman Constr. Co., Inc., Spring Valley, Minn. (22a)
- Freeman, Jesse H., Inc., Moline, Ill. (12c)
- Freeman & Jones, Inc., Cleveland, Ohio (34c)
- Freethy, Elmer J., El Cerrito, Calif. (4a)
- Freeto Constr. Co., Inc., Pittsburg, Kans. (15b)
- Freigang Constr. Co., Tacoma, Wash. (46d)
- French, Geo., Jr., Stockton, Calif. (4b)
- Fretz Constr. Co., Houston, Texas (42d)
- Fricke, H. C., Alliance, Nebr. (26a)
- Fridholm Constr. Co., St. Paul, Minn. (22a)
- Friedman Constr. Co., Fort Worth, Texas (42c)
- Friel, Edw. B., Inc., Washington, D. C. (8a)
- Frisbie, J. W., Kansas City, Mo. (15b)
- Frisinger, John H., Inc., Ann Arbor, Mich. (21c)
- Frisinger, Max R., Ann Arbor, Mich. (21c)
- Fritz Constr. Co., Madison, Wis. (48b)
- Fritz, W. G., Co., Inc., West Orange, N. J. (29a)
- Frost Constr. Co., Hydro, Okla. (35b)
- Frouge Constr. Co., Inc., Bridgeport, Conn. (6a)
- Frowine Constr. Corp., Portsmouth, Ohio (34d)
- Fruco Constr. Co., St. Louis, Mo. (24c)
- Fruin-Colon Constr. Co., St. Louis, Mo. (12d) (24c)
- Fry & Kain, Lansing, Mich. (21c)
- Fuel Economy Engr. Co., St. Paul, Minn. (22a)
- Fuess, C. A., & Co., Dallas, Texas (42a)
- Fuglevand, Chris. & Son, Havre, Mont. (25b)
- Fulcher, Gordon, Constr. Co., Austin, Texas (42k)
- Fulghum Contr. Corp., Harrisburg, Pa. (42m)
- Fulghum, Geo. A., & Co., Memphis, Tenn. (41c)
- Fulghum, Kenneth, Inc., Pensacola, Fla. (9d)
- Fulk & Needham, Pilot Mountain, N. C. (32a)
- Fullen Constr. Co., Scottsbluff, Nebr. (26a)
- Fuller-Davies Co., Frankfort, Ky. (16a)
- Fuller, George A., Company, New York, N. Y.; Chicago, Ill.; Boston, Mass.; Washington, D. C.; Los Angeles, Calif.; & Pittsburgh, Pa. (N) (12a) (31c) (37b)
- Fuller & Julien, Inc., Raleigh, N. C. (32a)
- Fullerton & Hussey, Oklahoma City, Okla. (35b)
- Fullmer Bros., Salt Lake, Utah (43a)
- Fulton Constr. Co., Houston, Texas (42d)
- Fulton, E. A., Boise, Idaho (11a)
- Fulton, R. H., & Co., Lubbock, Texas (42m)
- Fulton, W. D., Constr. Co., Oklahoma City, Okla. (35b)

A.G.C. DIRECTORY

Funderburk Constr. Co., Sutherlin, Oreg. (46a)
 Fuqua, Fred B., Lynchburg, Va. (45a)
 Furr, D. O., Constr. Co., Shreveport, La. (17b)
 Fusco-Amatruda Co., The, New Haven, Conn. (6a)
 Fusco, J. R., Inc., Montclair, N. J. (29a)

G

G. A. V. Bldrs., Moundsville, W. Va. (47a)
 G-I Constr. Co., Meeker, Okla. (35b)
 G & K Constr. Co., Pascagoula, Miss. (23c)
 G. W. L. Constr. Co., North Little Rock, Ark. (3a)
 Gaasland Co., Inc., Bellingham, Wash. & Denver, Colo. (5a) (46b)
 Gaddie, R. E., Inc., Bowling Green, Ky. (16a)
 Gaines Bros., Miami, Okla. (35b)
 Galiardi Constr. & Supply Co., Connellsville, Pa. (37c)
 Gallagher Asphalt Co., Inc., Thornton, Ill. (12c)
 Gallagher & Burk, Inc., Oakland, Calif. (4b)
 Gallant, C. W., Inc., Charlotte, N. C. (32a)
 Gallespie Constr. Co., Jacksonville, Fla. (9a)
 Gallimore, L. B., Greensboro, N. C. (32a)
 Gamble Constr. Co., St. Louis, Mo. (24c)
 Games, Earl E., Reno, Nev. (27a)
 Ganley, Ernest M., Co., Inc., Minneapolis, Minn. (22a)
 Ganley, Howard, Inc., St. Paul, Minn. (22a)
 Ganschietz, Ferd., East St. Louis, Ill. (12d)
 Ganther, Ben B., Co., Oshkosh, Wis. (48b)
 Garavaglia, Louis, Centerline, Mich. (21c)
 Gardner Constr. Co., Glenwood Springs, Colo. (5b)
 Gardner, Elmer C., Inc., Houston, Texas (42j)
 Gardner, Fred C., Kinston, N. C. (32a)
 Gardner, W. W., Salt Lake City, Utah (43a)
 Garff, Mark B., Ryberg & Garff, Salt Lake City, Utah (43a)
 Garmer & Stiles Co., Des Moines, Iowa (14b)
 Garmon, C. H., & Son, Terre Haute, Ind. (13b)
 Garms, Grady, Little Rock, Ark. (3a)
 Garon Constr. Co., Inc., Manchester, N. H. (28a)
 Garriott, Jay A., Bedford, Ind. (13b)
 Gaspard Constr. Co., The, Cleveland, Ohio (34c)
 Gast Constr. Co., Warsaw, Ind. (13a)
 Gast, Harry, Los Angeles, Calif. (4d)
 Gast & Ray Constr. Co., Louisiana, Mo. (24b)
 Gates, E. L., Inc., Salem, Oreg. (36a)
 Gates, John R., Fort Wayne, Ind. (13a)
 Gaylord Constr. Co., Houston, Texas (42f)
 Gebhard-Berghammer, Inc., Milwaukee, Wis. (48a)
 Gee Constr. Co., Shenandoah, Iowa (14a)
 Gee-Maurer Constr. Co., Grand Island, Nebr. (26a)
 Geery, Glenn, Inc., Missoula, Mont. (25a)
 Gehring, C. L., Bartlesville, Okla. (35a)
 Gehring, F. P., Atchison, Kans. (15a)
 Gehron, Jacob, Co., Inc., The, Williamsport, Pa. (37a)
 Geiger, E. W., Inc., Topeka, Kans. (15b)

Gellatly Constr. Co., The, Bridgeport, Conn. (6a)
 General Bldrs., Inc., Las Vegas, Nev. (27b)
 General Constr. Co., Shreveport, La. (17b)
 General Constr. Co., Columbia, S. C. (32a)
 General Constr. Co., Fort Worth, Texas (42f)
 General Construction Company, Seattle, Wash. & Portland, Oreg. (N) (36a) (46a) (46c)
 General Constr. Co. of Michigan City, Inc., Michigan City, Ind. (13b)
 General Constr. Corp., Oklahoma City, Okla. (35b)
 General Contr. Co., Charleston, S. C. (32a)
 General Contr. Co., Inc., Granite City, Ill. (12d)
 General Engr. Co., Topeka, Kans. (15b)
 General Engr. Corp., Florence, S. C. (32a)
 General Paving Co., Champaign, Ill. (12c)
 General Paving Constr. Co., Grand Rapids, Mich. (21c)
 General Service, Inc., Minneapolis, Minn. (22a)
 George Constr. Co., Houston, Texas (42j)
 George, Henry, & Sons, Spokane, Wash. (46c)
 George, J. D., Co., Waco, Texas (42j)
 George & Lynch Co., Wilmington, Del. (7a)
 Georgia Southern Constr. Co., Macon, Ga. (10a)
 Gerhold Co., Columbus, Nebr. (26b)
 Germer, Abbott & Waldron Constr. Co., Tremonton, Utah (43a)
 Gerometta Constr. Co., Gary, Ind. (13b)
 Gerwick, Ben C., Inc., San Francisco, Calif. & Anchorage, Alaska (4b) (4d) (50a)
 GESCO, Inc., Louisiana, Mo. (24b)
 Gessler Constr. Co., Inc., Syracuse, N. Y. (31d)
 Gethmann Constr. Co., Inc., Gladbrook, Iowa (14b)
 Getman Bros., South Haven, Mich. (21c)
 Geupel, Carl M., Constr. Co., Indianapolis, Ind. (13b)
 Geyer, Harold C., Monterey, Calif. (4a)
 Gibbons, Jas. Co., The, Relay, Md. (19b)
 Gibbons & Reed Co., Salt Lake City, Utah & Cascade Locks, Oreg. (36a) (43a)
 Gibson, John H., Durham, N. C. (32a)
 Gibson, W. B. Co., Inc., The, Warren, Ohio (34f)
 Gien, Seth E., & Assos., Memphis, Tenn. (41c)
 Giertsen, Walter D., Co., Minneapolis, Minn. (22a)
 Gifford-Hill & Co., Inc., Dallas, Texas (42f)
 Gilbane Bldg. Co., Providence, R. I. (38a)
 Gilbert Bros., Monroe, La. (17g)
 Gilbert Engr. Co., Inc., Statesville, N. C. (32a)
 Gilbert, F. O., Contr., Inc., Bossier City, La. (17b)
 Gilbreath & Blankinship, Alice, Texas (42i)
 Gilchrist Constr. Co., Las Cruces, N. Mex. (30b)
 Gill Constr. Co., Bakersfield, Calif. (4d)
 Gill, Harry, Co., Philadelphia, Pa. (37d)
 Gilliland Constr. Co., Alpena, Mich. (21c)
 Gillisse, John & Paul, Grandville, Mich. (21c)
 Gilmore-Olson Co., The, Cleveland, Ohio (34c)
 Gillotti Constr. Co., Des Moines, Iowa (14a)

Gilmore, Chas. G., Asphalt Prods., Inc., Anna, Ill. (12c)
 Gilmore Constr. Co., Omaha, Nebr. (26a)
 Gilo, Cosmo, Mehama, Oreg. (36a)
 Gilpatrick, M. J., Constr. Co., Riverton, Wyo. (49a)
 Gilstrap Constr. Co., Lubbock, Texas (42p)
 Gily, Louis A., & Sons, Laurel, Miss. (23d)
 Giordano Constr. Co., Branford, Conn. (6a)
 Gipson, B. A., Constr. Co., Inc., Lake Charles, La. (17c)
 Gist, John C., Sacramento, Calif. (4b)
 Giusto, B. L., San Francisco, Calif. (4a)
 Gjellefeld Constr. Co., Forest City, Iowa (14a)
 Glade Constr. Co., Fort Worth, Texas (42j)
 Glaser, A. J., Co., Inc., Muncie, Ind. (13b)
 Glass Constr. Co., Belvidere, Ill. (12b)
 Glaze Construction Company, St. Joseph, Mo. (L)
 Glenn Constr. Co., Charlotte, N. C. (32a)
 Glenroy Co., Indianapolis, Ind. (13b)
 Globe Constr. Co., Wichita, Kans. (15b)
 Globe Constr. Co., Kalamazoo, Mich. (21c)
 Globe Constr. Co., Inc., New Orleans, La. (17a)
 Glover, Geo. J., Co., Inc., New Orleans, La. (17a)
 Godley-Hinnant, Inc., Wilmington, N. C. (32a)
 Godwin, O. W., Inc., Dunn, N. C. (32a)
 Goetting, E., & Sons, Tacoma, Wash. (46d)
 Goetz & Brennan, Seattle, Wash. (46a)
 Goldberg, A. N., Inc., New Orleans, La. (17a) (17e)
 Golden, M. H., Constr. Co., San Diego, Calif. (4c)
 Golder Constr. Co., Inc., Philadelphia, Pa. (37d)
 Goldman, Perry J., Constr. Co., Philadelphia, Pa. (37d)
 Goldston Co., The, Corpus Christi, Texas (42i)
 Gooch, J. Y., Co., Inc., Miami, Fla. (9b)
 Good Roads Engr. & Contr. Co., Inc., Waukegan, N. Y. (31d)
 Goode Constr. Corp., Charlotte, N. C. (32a)
 Goode & Schroeder, Inc., Los Angeles, Calif. (4d)
 Goodenough, Wells P., Inc., Palo Alto, Calif. (4a)
 Goodfellow Bros., Inc., Wenatchee, Wash. (46a)
 Gooding, O. E., & Co., Ypsilanti, Mich. (21c)
 Goodwin, C. J., Pittsburgh, Pa. (37b)
 Goodwin, Carl, & Sons, Allegan, Mich. (21c)
 Goodwin Constr. Co., Blackfoot, Idaho (11a)
 Goodwin Constr. Co., Inc., Danville, Ind. (13a)
 Gordon Constr. Co., Denver, Colo. (5b)
 Gorman Constr. Co., Flemingsburg, Ky. (16a)
 Goss, Jos. H., Newark, Ohio (34d)
 Goss, Wm. R., Co., Chicago, Ill. (12a)
 Gossen Constr. Co., Lafayette, La. (17f)
 Gould Constr. Co., The, Davenport, Iowa & San Carlos, Calif. (4a) (14a)
 Gould & Cross, Grand Rapids, Mich. & Wilmington, Calif. (4d) (21c)
 Goulter, K. L., & Co., Dexter, Oreg. (36a)
 Gouther, Hugh, Port Angeles, Wash. (46a)
 Grabau, R. H., Constr. Co., Boone, Iowa (14b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

H

- Grabbe, H. A., Constr. Co., Alton, Ill. (12d)
 Grace Constr. & Supply Co., The, Fort Wayne, Ind. (13a)
 Gradle Bros., Inc., Carmel, Ind. (13a)
 Grady Bros., Inc., Indianapolis, Ind. (13a)
 Grafe-Callahan Constr. Co., Dallas, Texas (2a)
 Graft, E. W., Constr. Co., Saginaw, Mich. (21c)
 Gragg, O. R., Henryetta, Okla. (35b)
 Graham, Angus W., Inc., Miami, Fla. (9b)
 Graham Bros., Richmond, Va. (45a)
 Graham, J. F., Tacoma, Wash. (46d)
 Graham & Jensen, Merced, Calif. (4a)
 Graham, P. A., Shreveport, La. (17b)
 Graham, W. E., & Sons, Cleveland, N. C. (32a)
 Graham, Wilbur L., Kalispell, Mont. (25b)
 Grand Rapids Asphalt Paving Co., Grand Rapids, Mich. (21c)
 Grandview Constr. Corp., The, Mt. Vernon, N. Y. (31d)
 Grandy, E. F., Laguna Beach, Calif. (4d)
 Granger Bros., Lansing, Mich. (21b)
 Granger Contr. Co., Inc., Worcester, Mass. (20b)
 Granite Bituminous Paving Co., St. Louis, Mo. (12c) (24b) (24c)
 Granite Constr. Co., Watsonville, Calif. (4b) (4d)
 Grannis & Sloan, Inc., Fayetteville, N. C. (32a)
 Grant Constr. Co., Coeur d'Alene, Idaho (46c)
 Grantwood Contr. Co., St. Louis, Mo. (24b) (24c)
 Grau, H. C., Sr., Philadelphia, Pa. (37d)
 Graves Bros. Co., Melvin, Iowa (14a)
 Gravier & Harper, Alexandria, La. (17f)
 Gray, C. E., Emporia, Kans. (15b)
 Gray Constr. Co., Laurel, Miss. (23c)
 Gray, W. A., Constr. Co., Shreveport, La. (17b)
 Grays Harbor Constr. Co., Aberdeen, Wash. (46a)
 Great Lakes Dredge & Dock Co., New Orleans, La. (23a)
 Gredvig, Maurice, Yakima, Wash. (46a)
 Green, B. A., Constr. Co., Inc., Lawrence, Kans. (15a)
 Green, Chas. A. & Son, Inc., Appleton, Wis. (48b)
 Green Constr. Co., Des Moines, Iowa (14a)
 Green, Edw., Co., Los Angeles, Calif. (4d)
 Green, Edwin M., Inc., Miami, Fla. (9b)
 Green Island Constr. Co., Watervliet, N. Y. (31d)
 Green, Jas. E., Johnson City, Tenn. (41e)
 Green, Mont J., Manhattan, Kans. (15a)
 Green, Ralph, & W. L. Groesbeck, Des Moines, Iowa & Lincoln, Nebr. (14a) (26b)
 Green, T. H., Durham, N. C. (32a)
 Greene & Gust Co., Chicago, Ill. (12a)
 Greene, Wm. H., Westbury, N. Y. (31d)
 Greer Bros., Shreveport, La. (17b)
 Gregory, Artie, Little Rock, Ark. (3a)
 Gregory, J. M., Raleigh, N. C. (32a)
 Gregory-Roth-Schenker Corp., The, New York, N. Y. (21b)
 Gremillion, A. A., & Co., Alexandria, La. (17f)
 Gremillion Bros., Alexandria, La. (17f)
 Gresham Constr. Co., Santa Clara, Calif. (4a)
 Gresham, E. T., Co., Inc., Norfolk, Va. (45a)
 Gridley Constr. Co., Oxnard, Calif. (4d)
 Griffin Constr. Co., Atlanta, Ga. (10a)
 Griffin Constr. Co., Merriam, Kans. (15b)
 Griffin, John F., Co., Cambridge, Mass. (20b)
 Griffith, G. G., Inc., Tulsa, Okla. (42m)
 Griffith Co., Los Angeles & San Diego, Calif. (4c) (4d)
 Griffith & Moorhead, Atlanta, Ga. (10a)
 Griffiths, John, & Son Constr. Co., Chicago, Ill. (12a)
 Grigg & Arthur Constr. Co., Inc., Reidsville, N. C. (32a)
 Griggs, Raymond, Clovis, N. Mex. (30b)
 Grimshaw, W. R., Co., Tulsa, Okla. (35a)
 Groneman & Co., Provo, Utah (43a)
 Groomes Constr. Co., Cheswick, Pa. (37b)
 Grosclose, Myron, Bethany, Okla. (35b)
 Grosshans & Petersen, Inc., Marysville, Kans. (15b) (26b)
 Groz, M. J., Ft. Dodge, Iowa (14b)
 Grove, Cecil B., San Diego, Calif. (4c)
 Grove, M. J., Lime Co., Lime Kiln, Md. (19b)
 Grove Shepherd Wilson & Krueger, Inc., New York City: Washington, D. C. & Seattle, Wash. (8a) (31c) (46a) (50a)
 Groves, Lundin & Cox, Inc., Minneapolis, Minn. (22a)
 Groves, S. J., & Sons Co., Springfield, Ill.: Minneapolis, Minn.; Woodbridge, N. J. & New York, N. Y. (12c) (22a) (25a) (29a) (31d) (33a) (37c)
 Grundeman Constr. Co., Holton, Kans. (15b)
 Grundeman, Ed. Topeka, Kans. (15b)
 Guerin & Jacobus, Inc., Melbourne, Fla. (9f)
 Guest, C. M., & Sons, Anderson, S. C. & Greensboro, N. C. (32a)
 Guion, A. H., & Co., Charlotte, N. C. (32a)
 Gulf Bitulithic Co., Houston, Texas (42f)
 Gulf Constr. Co., Mobile, Ala. (1a)
 Gulf States Development Co., Warrington, Fla. (9d)
 Gull Contr. Co., Inc., Flushing, L. I. N. Y. (31d)
 Gund Graham Co., Freeport, Ill. (12c)
 Gundlach, Herman, Inc., Houghton, Mich. (21d)
 Gunit Concrete & Constr. Co., Houston, Texas (42d)
 Gunn Constr. Co., Los Angeles, Calif. (4d)
 Gunnell Constr. Co., Inc., Washington, D. C. (8a)
 Gunther, H. H., Constr. Co., Galesburg, Ill. (12c)
 Gunther & Shirley Co., Los Angeles, Calif. (4d)
 Gurtler, Hebert & Co., Inc., New Orleans, La. (17a)
 Gustafson, B. L., Phoenix, Ariz. (2a)
 Gustafson, Dave, & Co., Inc., Sioux Falls, S. Dak. (40a)
 Gustafson, Frank N., & Sons, Inc., Providence, R. I. (38a)
 Gustafson, S. A., Constr. Co., Sioux Falls, S. Dak. (40a)
 Guth & Schmidt, Sacramento, Calif. (4a)
 Gutmann, John B., Constr. Co., Inc., St. Louis, Mo. (24c)
 H & H Constr. & Supply Co., Thomasville, Ga. (10a)
 H. & M. Equipment Co., Inc., Hastings, Nebr. (26b)
 HRC Constr. Co., Inkster, Mich. (21a)
 Haagensohn & Tranby, McIntosh, Minn. (22a)
 Haake, Floyd, Santa Fe, N. Mex. (5b) (30a)
 Haas, E. T., Co., East Los Angeles, Calif. (4d)
 Haas & Haynie, San Francisco, Calif. (4b)
 Haase Constr. Co., New Orleans, La. (17a)
 Hable, E. W., & Sons, Corsicana, Texas (42f)
 Hadden, C. Frank, Albany, Ga. (10a)
 Haddock Engrs., Ltd., Montebello, Calif., Mex. (4d)
 Haddock Engrs., Ltd. & Assos., Anchorage, Alaska (50a)
 Haddock, J. E., Ltd., Pasadena, Calif. (41)
 Haddock, W. D., Constr. Co., Wilmington, Del. (7a)
 Haegg Constr. Co., Cedar Rapids, Iowa (14a)
 Haeseler, A. H., Bldg. & Contr. Co., St. Louis, Mo. (21c)
 Hafer, Guy J., Chambersburg, Pa. (37a)
 Hagen, Harry J., Globe, Ariz. (2a)
 Hagerman Constr. Corp., Fort Wayne, Ind. (13b)
 Haggart Constr. Co., The, Fargo, N. Dak. (33a) (40a)
 Haggart, Geo. E., Constr. Co., Fargo, N. Dak. (43a)
 Haggerty-Messmer Co., Bozeman, Mont. (25b)
 Haglin, C. F., & Sons, Co., Minneapolis, Minn. (22a)
 Hagman, Henry, Cashmere, Wash. (46c)
 Hahn Constr. Co., Des Moines, Iowa (14a)
 Hahn-St. John, Hawthorne, Calif. (4d)
 Hahner & Foreman, Inc., Wichita, Kans. (15a)
 Haigh, Jos., & Sons Co., Chicago, Ill. (12a)
 Hailey, W. L., & Co., Nashville, Tenn. (41d)
 Hainsworth Constr. Co., Seattle, Wash. (46b)
 Hair, J. L., & Sons Constr. Co., Wichita Falls, Texas (42p)
 Haldeeman, M. L., & Son, Hershey, Pa. (37a)
 Hale, Rogers, Constr. Co., Henderson, Texas (42n)
 Hall-Atwater Co., Seattle, Wash. (46b)
 Hall Bros. Constr. Co., Marysville, Kans. (15b)
 Hall Constr. Co., Atlanta, Ga. (10a)
 Hall Constr. Co., Tacoma, Wash. (46d)
 Hall & Cox Constr. Co., Baton Rouge, La. (17d)
 Hall, E. C., Co., Portland, Ore. (36a)
 Hall, Guy E., Bakersfield, Calif. (4d)
 Hall, H. H., Constr. Co., East St. Louis, Ill. (12c) (12d)
 Hall, W. A., & Co., Inc., Norfolk, Va. (45a)
 Hall, W. E., Constr. Co., Alhambra, Calif. (4d)
 Hallahan, John P., Inc., Philadelphia, Pa. (37d)
 Halleran Bros., Seattle, Wash. (46a)
 Hallett Constr. Co., Crosby, Minn. (22a)
 Hallman Bros., Atlanta, Ga. (10a)
 Hallmark Constr. Co., Tucson, Ariz. (2a)
 Halper Constr. Corp., Los Angeles, Calif. (4d)

A.G.C. DIRECTORY

- Halpin, L. H., Toledo, Ohio (34d)
Halprin, Jack A., Inc., New Haven, Conn. (6a)
Halvorson, Carl M., Portland, Ore. (25a)
Halvorson, Carl M., Inc., Portland, Ore. (36a) (36b)
Halvorson Constr. Co., Salem, Ore. (11a)
Halvorson Constr., Coleta, Calif. (4d)
Halvorson, H., Inc., Spokane, Wash. (46c) (46e)
Hamann Constr. Co., Manitowoc, Wis. (48b)
Hamby Constr. Co., Inc., Athens, Tenn. (41a)
Hamer Bros., Inc., Detroit, Mich. (21a)
Hamilton Constr. Co., Miami, Fla. (9b)
Hamilton, Gordon, Contr. Co., Inc., Kansas City, Mo. (24b)
Hamilton & Thoms, Eugene, Ore. (36a)
Hamm, Daniel, Drayage Co., St. Louis, Mo. (24c)
Hamm, Norman R., Perry, Kans. (15b)
Hammer Bldg. & Supply Co., Inc., Tampa, Fla. (9c)
Hammock, R. W., Van Buren, Ark. (3a) (35b)
Hammond, H. W., Denver, Colo. (5a)
Hammond, Ross B., Co., Portland, Ore. (36b)
Hancock Co., Mobile, Ala. (1a)
Hand, W. H., & Son, Belmont, N. C. (32a)
Hanes, C. M., Constr. Co., Denver, Colo. (5b)
Hannaford Constr. Co., Tulsa, Okla. (35a)
Hansen, Arthur V., Co., Cedar Falls, Iowa (14b)
Hansen, Chris, Sioux City, Iowa (14b)
Hansen, D. G., Logan, Kans. (15b)
Hansen, John, San Diego, Calif. (4c)
Hansen, Ole, & Sons, Inc., Pleasantville, N. J. (29a)
Hansen & Parr Constr. Co., Spokane, Wash. (25a) (46c)
Hanson, A. J., Co., Pineville, La. (23a)
Hanson Constr. Co., Washington, Iowa (14a)
Hanson, Frank W., Indianapolis, Ind. (13b)
Hanson, Olene, Houston, Texas (42f)
Happel, H. J., Constr. Co., Tulsa, Okla. (42j)
Harbeson, W. B., Inc., Houston, Texas (42d)
Hardaway Contr. Co., Columbus, Ga. (10a) (32a)
Hardin, Ira H., Co., Atlanta, Ga. (10a)
Harding Blasting Co., Portland, Ore. (36a)
Hardison, J. T., & Son, Washington, N. C. (32a)
Hardy-Stevens Co., New Orleans, La. (17a)
Haren & Laughlin Constr. Co., Kansas City, Kans. (24a)
Hargrave Constr. Co., Cedar Rapids, Iowa (14a)
Haring, Daniel, Co., Inc., Clinton, Iowa (14b)
Harlan, B. W., Redding, Calif. (4a)
Harlan Constr. Co., Republican City, Nebr. (26b)
Harlin, E. L., West Plains, Mo. (24b)
Harlee-Quattlebaum Constr. Co., Florence, S. C. (32a)
Harlos Constr. Co., Bloomington, Ind. (13b)
Harman Bros., Grafton, W. Va. (47a)
Harmeling, Carl C., Stockton, Calif. (4b)
Harmoon Constr. Co., Oklahoma City, Okla. (35a)
Harms Bros., Sacramento, Calif. (4b)
Harms, W. C., Fort Worth, Texas (42c)
Harney, Chas. L., Inc., San Francisco, Calif. (4b)
Harper Bldrs. Supply, Inc., Williamston, S. C. (32a)
Harper & Florsheim, Shreveport, La. (17b)
Harper, J. A., Crowville, La. (17g)
Harper, L. F., Great Bend, Kans. (15b)
Harper, W. L., Co., Cincinnati, Ohio (34b)
Harr & Horton, Portland, Ore. (36a)
Harreld Bros., Marion, Ind. (13b)
Harris Constr. Co., Faulkton, S. Dak. (40a)
Harris Constr. Co., Inc., Fresno, Calif. (4a)
Harris, E. L., & Son, Charleston, W. Va. (47a)
Harris, J. Henry, Berkeley, Calif. (4b)
Harris, J. Robt., Inc., Menlo Park, Calif. (4a)
Harris-McBurney Co., Jackson, Mich. (21c)
Harris, Sim J., Co., San Diego, Calif. (4c)
Harrison Bros. Co., The, Tacoma, Wash. (46d)
Harrison & Burrows, Inc., Jersey City, N. J. (29a) (31d)
Harrison, C. H., Waco, Texas (42j)
Harrison Construction Company, Pittsburgh, Pa. & Maryville, Tenn. (N) (37c) (47a) (32a) (37b)
Harrison Constr. Co., The, Denver, Colo. (5b)
Harrison, E. E., Corpus Christi, Texas (42i)
Harrison Engr. & Constr. Corp., Kansas City, Mo. & Woodville, Texas (12c) (14a) (15b) (24b) (42f)
Harrison, H. L., & Son, Inc., Westfield, N. J. (29a)
Harrison, M. R., Constr. Corp., Miami, Fla. (9b)
Hart Constr. Co., Tacoma, Wash. (46d)
Hart & Hart, Providence, Ky. (13a)
Harting, W. C., Constr. Co., St. Louis, Mo. (24c)
Hartman, John E., Kirkwood, Mo. (24c)
Hartong & Co., LaGrange Park, Ill. (12c)
Harvard Constr., Inc., St. Petersburg, Fla. (9c)
Harvey Constr. Co., El Monte, Calif. (4d)
Harvey Constr. Co., Inc., Manchester, N. H. (28a)
Harvey, Geo. R., & Son, Danville, Ind. (13a)
Harvey, J. E., Johnson City, Tenn. (41e)
Harvey, John J., Co., New Hartford, N. Y. (31d)
Harvey, L. A., Jackson, Miss. (23b)
Harvey & Rose, Arcadia, Calif. (4d)
Harvie, Wm. H., Birmingham, Mich. (21c)
Haselbacher, Henry & Sons, Inc., Clarksburg, W. Va. (47a)
Hasler, M. H., Constr. Co., Santa Ana, Calif. (4d)
Hasler, M. H., Constr. Co., & D & H Constr. Co., Folsom, Calif. (4b)
Hasslen Constr. Co., Inc., Ortonville, Minn. (22a)
Hathaway, E. A., & Co., San Jose, Calif. (4a)
Hauser Constr. Co., Portland, Ore. (36a)
Haverstick-Borthwick Co., Philadelphia, Pa. (37d)
Havlik, John, Jr., Scappoose, Ore. (36a)
Hawkins & Armstrong, Seattle, Wash. (46a)
Hawkins, H. H., & Sons Co., Newton, Mass. (20b)
Hawkins, Neal, Gastonia, N. C. (32a)
Haworth, Albert, Tampa, Fla. (9c)
Hayes, L. W., Inc., Kansas City, Mo. (15b) (24b)
Hayes, Milton R., Arvada, Colo. (5b)
Hayes, R. E., Wilmington, N. C. (32a)
Hayne Engr. Co., Charleston, W. Va. (47a)
Haynes, C. W., Co., Chicago, Ill. (12a)
Haynes, Chas. C., Jr., Constr. Co., Inc., West Durham, N. C. (32a)
Haynes, W. G., West Monroe, La. (17g)
Haynsworth, T. B., Jr., Florence, S. C. (32a)
Hays, A. L., & Son, Port Arthur & Houston, Texas (42b) (42d)
Hays & Nicoulin, Louisville, Ky. (16b)
Hazard, R. E., Contr. Co., San Diego, Calif. (4c)
Hazelwood, Geo. F., Co., Inc., The, Cumberland, Md. (19b) (37c)
Hazen & Clark, Spokane, Wash. (46e)
Heald & Christler, Inc., Cody, Wyo. (25a)
Healy, J. L., Constr. Co., Sioux Falls, S. Dak. (40a)
Healy, John E., & Sons, Inc., Wilmington, Del. (7a)
Healy, S. A., Company, The, Dalles, Ore. (36a)
Heard, Jesse F., & Son, West Monroe, La. (17g)
Heckendorf, F. A., Littleton, Colo. (5b)
Heckman-Reynolds Co., Charles City, Iowa (14a)
Hector Constr. Co., Inc., Caledonia, Minn. (22a)
Hedahl-Martin Co., The, Redwood City, Calif. (4a)
Hedin, J. D., Constr. Co., Washington, D. C. (8a)
Heffernan, J., Jr., Houston, Texas (42j)
Heffner Constr. Co., The, Celina, Ohio (34d)
Hegeman-Harris Co., Inc., New York City (31c)
Heidelberg, C. R., Jacksonville, Texas (42f)
Heineman, J. R., & Sons, Inc., Saginaw, Mich. (21b)
Heintz, R. A., Constr. Co., Portland, Ore. (36a)
Heisler & Woods, El Monte, Calif. (4d)
Helbig, A. S., Co., The, Akron, Ohio (34a)
Heldenfels Bros., Corpus Christi, Texas (42f) (42j)
Heller-Murray Co., The, Youngstown, Ohio (34f)
Helmer, Stanley S., Grand Rapids, Minn. (22a)
Helwig Constr. Co., Sebastopol, Calif. (4b)
Helwig, Fred R., Millersburg, Pa. (37a)
Hembling, Charles B., & Son, Red Bank, N. J. (L)
Henderson, David, & Son, Cleveland, Ohio (34c)
Henderson, H. R., & Co., Marshall, Texas (42f)
Hendrich, W. F., Co., Inc., The, Buffalo, N. Y. (31a)
Hendrick, C. L., & Sons, Waco, Texas (42L)
Hendrick, David R., & Co., Waco, Texas (42L)
Hendricks, Harold, Contr. Co., McAllen, Texas (42o)
Hendrickson Bros., Inc., Valley Stream, N. Y. (31d)
Hendry Bldg. Co., St. Petersburg, Fla. (9c)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Henery, Harry, Inc., Ottawa, Kans. (15b)
 Henkel Constr. Co., Mason City, Iowa (14b)
 Hennessy, A. P., & Sons, Inc., St. Petersburg, Fla. (9c)
 Hennigh, H. E., Cedartown, Ga. (10a)
 Henninger, Claude, Co., Bristol, Tenn. (41e)
 Henrikson Constr. Co., Seattle, Wash. (46b)
 Henry, Frank J., Inc., Wisconsin Rapids, Wis. (48b)
 Henry & Hall, Dubach, La. (17e)
 Henryetta Constr. Co., Henryetta, Okla. (35b)
 Henshaw Bros., Portland, Oreg. (36a)
 Hensler, R. R., Sun Valley, Calif. (4d)
 Henson, W. J., Prescott, Ariz. (2a)
 Herbinson Constr. Co., Brainerd, Minn. (22a)
 Herlihy Mid-Continent Company, Chicago, Ill. & Comstock, Mich. (L) (12a) (21b)
 Herman-Sipe & Co., Inc., Conover, N. C. (32a)
 Hermans Constr. Co., Ft. Dodge, Iowa (14b)
 Herrick, G. G., Des Moines, Iowa (14a)
 Herrick, R. P., Co., Butte, Mont. (25a)
 Herrin, C. A., Durham, N. C. (32a)
 Herring, Geo. B., & Son, Inc., Mansfield, Ohio, (34d)
 Herrington, G. S., Auburn, Calif. (4a)
 Herman Constr. Co., Atlanta, Ga. (10a)
 Hersom, C. I., Laurens, Iowa (14b)
 Hertel & Deyo Co., Grand Rapids, Mich. (21c)
 Hertfelder, Wm., Inc., St. Louis, Mo. (24c)
 Herz, Geo., & Co., San Bernardino, Calif. (4d)
 Herz Paving Co., San Bernardino, Calif. (4d)
 Heslep, John C., Columbia, S. C. (32a)
 Hess, Marion J., Malad, Idaho (11a)
 Hesse, Chas. J., Inc., Belford, N. J. (29a)
 Hesser, L. J., Greeley, Colo. (49a)
 Hester, E. F., Greensboro, N. C. (32a)
 Heuser & Garnett, Phoenix, Ariz. (2a)
 Hew Constr. Co., Boston, Mass. (20b)
 Hewitt, F. R., & Co., Parkwater, Wash. (46c)
 Hewitt, R. N., Charleston, W. Va. (47a)
 Hickey & Co., Dallas, Texas (42a)
 Hickey, Frank T., Inc., Los Angeles, Calif. (4d)
 Hickey, Thos. L., Inc., South Bend, Ind. (13b)
 Hickory Constr. Co., Inc., Hickory, N. C. (32a)
 Hicks Co., The, Alma, Mich. (21c)
 Hicks Constr. Co., Waco, Texas (42L)
 Hicks, Fred E., Constr. Co., Knoxville, Tenn. (41b)
 Hicks, R. C., Charlotte, N. C. (32a)
 Higginbotham, A. G., Co., Charleston, W. Va. (47a)
 Higgins, R. T., Hot Springs, Ark. (3a)
 Higgins, V. B., Co., Greensboro, N. C. (32a)
 Higginson, Peyton, Mobile, Ala. (1a)
 Highland Co., Louisville, Ky. (16b)
 Higley, Albert M., Co., The, Cleveland, Ohio (34c)
 Hilde Constr. Co., Inc., Great Falls, Mont. (25a)
 Hill, Carl V., Greeley, Colo. (5b)
 Hill & Combs, San Antonio, Texas (42e)
 Hill Co., Inc., Oak Hill, W. Va. (47a)
 Hill, D. B., Little Rock, Ark. (3a)
 Hill, Douglas G., Inc., Salina, Kans. (15a)
 Hill, F. D., Constr. Co., Amarillo, Texas (42g)
 Hill, Houston, Inc., Midland, Texas (42p)
 Hill, J. S., Constr. Co., Washington, N. C. (32a)
 Hill, John, Constr. Co., St. Louis, Mo. (24c)
 Hill, John, Constr. Co., The, Mansfield, Ohio (34d)
 Hill, W. D., Constr. Co., Houston, Texas (42d)
 Hillier, Don, & Sons, Inc., Pahokee, Fla. (9e)
 Hillyer & Lovan, Jacksonville, Fla. (9a)
 Hilton & Carr, Ogden, Utah (43a)
 Hinchberger Constr. Co., Corpus Christi, Texas (42i)
 Hinkle Constr. Co., Paris, Ky. (16a)
 Hinman, A. E., Corpus Christi, Texas (42i)
 Hinman Bros. Constr. Co., The, Denver, Colo. (5b)
 Hipskind Drainage Co., Fort Wayne, Ind. (13a)
 Hirt, Edw. G., St. Cloud, Minn. (22a)
 Hites, L. V., Co., Kansas City, Mo. (15b)
 Hitz Constr. Co., Billings, Mont. (25b)
 Hixson & Lehenbauer, Topeka, Kans. (15b)
 Hoagland-Findlay Engr. Co., Long Beach, Calif. & Seattle, Wash. (4d) (46a)
 Hoak Constr. Co., West Des Moines, Iowa (14a)
 Hoar, F. R., & Son, Inc., Birmingham, Ala. (1a)
 Hoback, L. E., Everett, Wash. (46a)
 Hobbs, E. L., Constr. Co., Denver, Colo. (5a)
 Hobe Engr. Co., Sioux City, Iowa (14a)
 Hobeck, J. W., Holland, Mich. (21c)
 Hodgdon, Edwin J., Mirror Lake, N. H. (28a)
 Hodges & Co., Inc., Anniston, Ala. (1a)
 Hodges Constr. Co., Oklahoma City, Okla. (35b)
 Hodges Constr. Co., Seattle, Wash. (46b)
 Hodgkiss & Douma, Petoskey, Mich. (21c)
 Hoeffken, M., Co. & Hoeffken Bros., Inc., Belleville, Ill. (12c) (12d)
 Hoegerman, Wm. C., Lodi, Calif. (4a)
 Hoepfner-Bartlett Co., Eau Claire, Wis. (48b)
 Hoff, Frederick T., Gulfport, Miss. (23c)
 Hoffman Bros., Independence, Iowa (14b)
 Hoffman, F., Co., Wilkesburg, Pa. (37b)
 Hoffman, L. H., Portland, Oreg. (36b)
 Hoffman, Lee, Portland, Oreg. (36a) (36b)
 Hoffman, Morris, Contr. Co., Kansas City, Mo. (24a)
 Hoffman, Ned B., Fort Worth, Texas (42f)
 Hogan, Ben M., & Co., Little Rock, Ark. (3a)
 Hogan Bros., Inc., New Orleans, La. (17a)
 Hogan Co., The, Riverside, Calif. (4d)
 Hohner, Carl, & Son, Spokane, Wash. (46c)
 Hokanson & Bloom, Rockford, Ill. (12b)
 Hoke Constr. Co., Stillwater, Okla. (35a)
 Holdener Constr. Co., Sacramento, Calif. (4a)
 Holderman, V. N., & Sons, Inc., Columbus, Ohio (34d) (37c)
 Holdren Constr. Co., Mt. Vernon, Ill. (12c)
 Holland Bros. Constr. Co., Inc., Decorah, Iowa (14a)
 Holland, John G., Constr. Co., Houston, Texas (42j)
 Holley, J. F., Birmingham, Ala. (1a)
 Holm Constr. Co., Glendive, Mont. (25b)
 Holm-Page Co., The, Rockford, Ill. (12b)
 Holmes Constr. Co., Heyburn, Idaho (11a)
 Holmes Constr. Co., The, Wooster, Ohio (37c)
 Holmes Corp., The, Glenshaw, Pa. (37b)
 Holmes & English, West Englewood, N. J. (20a)
 Holmes & Murphy, Orchard Park, N. Y. (31d)
 Holmquist, F. E., Rockford, Ill. (12b)
 Holt, H. W., & Son, Columbus, Ohio (34d)
 Holt, Heenan, Graham, N. C. (32a)
 Holtz, B. W., Houston, Texas (42d)
 Holtze, H. S., Constr. Co., Sioux City, Iowa (14b)
 Holtzer, Herman W., Fort Worth, Texas (42j)
 Holzworth Constr. Co., Miles City, Mont. (25a)
 Homann, A. G., Lacey, Wash. (46d)
 Home Bldrs. Co., St. Cloud, Minn. (22a)
 Homer, W. O., Junction City, Kans. (15b)
 Homewood, Roy M., Chapel Hill, N. C. (32a)
 Honegger Bros. Constr. Co., Kingfisher, Okla. (35b)
 Honer, Allison, Co., Santa Ana, Calif. (4d)
 Honnen, Ed. H., Denver, Colo. (5b)
 Hood Constr. Corp., Lynwood, Calif. (4d)
 Hood, E. E., & Son, San Antonio, Texas (42f)
 Hooker Constr. Co., Waco, Texas (42L)
 Hooks, C. F., Birmingham, Ala. (1a)
 Hoops Constr. Co., Twin Falls, Idaho (11a)
 Hope Bldg. Co., Inc., Providence, R. I. (38a)
 Hopkins, Geo. P., Gulfport, Miss. (23c)
 Hopkins, Lewis A., & Co., Yakima, Wash. (46c)
 Hopkins & McPherson, Laramie, Wyo. (49a)
 Hopkins, Richard, Co., Albany, N. Y. (31d)
 Hopper Co., San Francisco, Calif. & Anchorage, Alaska (4a) (50a)
 Horman Constr. Co., Salt Lake City, Utah (43a)
 Horn, B. F., Co., Abilene, Texas (42p)
 Horn Bros., Inc., Boston, Mass. (20b)
 Horn Constr. Co., Inc., Merrick, L. I., N. Y. (31d)
 Horn, Henry L., Connell, Wash. (11a)
 Horn's Crane Service, Denver, Colo. (5b)
 Horner, A. S., Constr. Co., Denver, Colo. (5b) (49a)
 Horning, Roy, Inc., Flint, Mich. (21c)
 Horrabain, Wm., Contr. Co., Iowa City, Iowa (14a)
 Horster Constr. Co., Tulsa, Okla. (35a)
 Horstmeier, Wm., Co., San Francisco, Calif. (4a)
 Hortie, R. J., San Diego, Calif. (4c)
 Hospital Constrs., Inc., Pittsburgh, Pa. (37b)
 Houge, R. S., Springfield, Mo. (24b)
 Hough-Cowgur & Co., Inc., St. Louis, Mo. (23a) (24b)
 House, K. L., Constr. Co., Inc., Albuquerque, N. Mex. (30b)
 Houser, T. F., Asheville, N. C. (32a)
 Houska, J. R., Co., Inc., Norfolk, Va. (45a)
 Houston Co., Brunswick, Me. (18a)
 Houston Contr. Co., Houston, Texas (42m)
 Howard Constr. Co., Sedalia, Mo. (24b)
 Howard Constr. Co., Inc., Greensboro, N. C. (32a)
 Howard Constr. Co., Inc., Houston, Texas (42d)
 Howard, G. F., Constr. Co., Inc., Canfield, Ohio (34d)
 Howard, J. H., Madisonville, Texas (42f)
 Howard, O. W., Madisonville, Texas (42f)
 Howard-Mitchell Constr. Co., Richmond, Va. (45a)

A.G.C. DIRECTORY

Howe, T. D., Constr. Co., Inc., Houston, Texas (42d)
 Howell Constr. Co., Memphis, Tenn. (41c)
 Howell, Jas. R., & Co., Denver, Colo. (5a)
 Howells, Prosser, Gary, Ind. (13b)
 Howes & Farrell, Inc., Oneida, N. Y. (31d)
 Howie Constr. Co., Jackson, Miss. (23b)
 Howland, Fred, Inc., Miami, Fla. (9b)
 Howton, W. C., Contr. Co., Birmingham, Ala. (1a)
 Hoyt, Chas. H., Silverton, Oreg. (36a)
 Hubbard Constr. Co., Orlando, Fla. (9c)
 Hubbard Constr. Co., Inc., Houston, Texas (42d)
 Hubbard, Roy, Constr. Co., Junction City, Kans. (15a)
 Hubbard & Son, Turlock, Calif. (4a)
 Hubbell, J. T., Constr. Co., Houston, Texas (42d)
 Hubbell, O. W., New Hartford, N. Y. (29a) (31d)
 Hubbell, S. W., Bldg. Co., The Bridgeport, Conn. (6a)
 Huber, Hunt & Nichols, Inc., Indianapolis, Ind. (13b)
 Hubner, C. L., Co., Denver, Colo. (5b)
 Huckaba & Sons Constr. Co., Mattoon, Ill. (12c)
 Huckle, Clarence P., Co., Kansas City, Mo. (24a)
 Hudgins, M. S., Roanoke, Va. (45a)
 Hudson River Constr. Co., Albany, N. Y. (31d)
 Huenergard Elec. Co., Portland, Oreg. (36a)
 Huettig, Schromm & Bennett, Palo Alto, Calif. (4b)
 Hufeisen, C. Wm., Anchorage, Alaska (50a)
 Hughes, Chas. T., Constr. Co., Oklahoma City, Okla. (35a)
 Hughes Constr. Co., Memphis, Tenn. (23a)
 Hughes-Foulkrod Co., Philadelphia, Pa. (37d)
 Hughes, H. D., Roswell, N. Mex. (30b)
 Hughes, J. B., Brownsville, Texas (42a)
 Hulcher, M. L., Co., Inc., Virden, Ill. (32a)
 Hull, Clarence A., Dryden, Mich. (21c)
 Hulme, Chas., Great Bend, Kans. (15b)
 Humble & Humble, Monroe, La. (17g)
 Humel Constr., Inc., Cleveland, Ohio (34c)
 Hune & Calvin, Marietta, Ohio (47a)
 Hungerford Constr. Co., Jackson, Mich. (21b)
 Hunkin-Conkey Constr. Co., The, Cleveland, Ohio (34c) (37c)
 Hunnicutt, A. R., Co., New Castle, Ind. (13b)
 Hunsicker, L. W., Co., Allentown, Pa. (37a)
 Hunt, C. R., Cass City, Mich. (21c)
 Hunt Constr. Co., Steamboat Springs, Colo. (5b)
 Hunt Constr. Co., Inc., North Durham, N. C. (32a)
 Hunt, David M., Philadelphia, Pa. (37d)
 Hunter Constr. Co., Ada, Okla. (35b)
 Hunter, Ralph H., Constr. Co., Hays, Kans. (15b)
 Hunting, J. L., Co., The, Cleveland, Ohio (34c)
 Huntington Bros., Napa, Calif. (4b)
 Hunzinger Constr. Co., Milwaukee, Wis. (48a)

Hurley, Gene, Constr. Co., St. Paul, Minn. (22a)
 Hurricane Fence & Constr. Co., Houston, Texas (42d)
 Hursey, Clinton, Constr. Co., East St. Louis, Ill. (12d)
 Hutcheson Constr. Co., Inc., Denver, Colo. (5b)
 Hutchinson, J. M., Sandyville, W. Va. (47a)
 Hutter Constr. Co., Fond du Lac, Wis. (48b)
 Hyde Constr. Co., Jackson, Miss. (23a)
 Hydrocarbon Research, Inc., New York, N. Y. (N) (37d)
 Hyman, Geo., Constr. Co., The, Washington, D. C. (8a)
 Hymans, John, & Sons, Hull, Iowa (14a)
 Hyndman, Earle L., Boston, Mass. (20b)
 I
 Iber, C., & Sons, Peoria, Ill. (12a)
 Idaho Constrs., Inc., Boise, Idaho (11a)
 Ideson Co., Inc., The, Kirkwood, Mo. (24c)
 Illinois Steel Bridge Co., Jacksonville, Ill. (12c)
 Immel Co., Fond du Lac, Wis. (48b)
 Immel, Lee J., San Pablo, Calif. (4b)
 Imperial Paving Co., Oklahoma City, Okla. (35b) (42j)
 Ind, Chas., Co., Rockford, Ill. (12c)
 Indenco, Oakland, Calif. (4a)
 Independent Constr. Co., Oakland, Calif. (4b)
 Independent Constr. Co., Overland Park, Kans. (15b)
 Indiana Constr. Co., Inc., Fort Wayne, Ind. (13b)
 Industrial Bldrs., Inc., Anderson, S. C. (32a)
 Industrial Constr. Co., Detroit, Mich. (21a)
 Industrial Constr. Co., Oklahoma City, Okla. (35a)
 Industrial Constr. Co., The, Hartford, Conn. (6a)
 Industrial Constrs., Denver, Colo. (5a)
 Industrial Contr. Co., Minneapolis, Minn. (22a)
 Industrial Engr. Co., New York City & Boston, Mass. (20b) (31c)
 Industrial Engrs. & Contrs., Inc., Tacoma, Wash. (4b) (36b) (46d)
 Industrial Engrs., Inc., Los Angeles, Calif. (4d)
 Indyk Constr. Co., Inc., Houston, Pa. (37c)
 Inge-Hayman Constr. Co., Inc., Dallas, Texas (42a)
 Ingram, W. K., Constr. Co., West Memphis, Ark. (23a)
 Inland Asphalt Co., Spokane, Wash. (46c)
 Inland Constr. Co., Wichita, Kans.; Omaha, Nebr.; Cheyenne, Wyo. & Rapid City, S. Dak. (5b) (15b) (25a) (26b) (40a) (49a)
 Inland Constr. Co., Inc., Rosedale, Miss. (23a)
 Inter-City Sand & Gravel Co., Inc., Eugene, Oreg. (36a)
 Intercounty Constr. Corp., Hyattsville, Md. (19b)
 Intermountain Bldrs., Inc., Caldwell, Idaho (11a)

Intermountain Plumbing Co., Boise, Idaho (11a)
 International Chimney Corp., Buffalo, N. Y. (31a)
 International Constr. Corp., Tampa, Fla. (9c)
 Inter State Constr. Co., Kansas City, Mo. (24a)
 Interstate Constr. Co., Charlotte, N. C. (32a)
 Inwood Constr. Co., Dallas, Texas (42a)
 Iowa Bridge Co., Des Moines, Iowa (14a)
 Irish, E. A., Los Angeles, Calif. (4d)
 Irons, Max, & Sons, Inc., Fort Wayne, Ind. (13b)
 Irons & Reynolds, Inc., Washington, D. C. (8a)
 Irwin, John, Contr. Co., Inc., The, Lockport, N. Y. (31d)
 Irwin & Leighton, Philadelphia, Pa. (37d)
 Irwin, Robt. L., Memphis, Tenn. (41c)
 Isackson, Geo., Co., Portland, Oreg. (36b)
 Isbell Constr. Co., Inc., Reno, Nev. & Santa Rita, N. Mex. (2a) (27a) (30a)
 Istock, Nick, Aliquippa, Pa. (37c)
 Ivey Bros. Constr. Co., Atlanta, Ga. (10a)
 Ivy Constr. Corp., Charlottesville, Va. (45a)
 Izzi, Michael, Temple City, Calif. (4d)
 J
 J. & B. Constr. Co., Los Angeles, Calif. (4d)
 J & J Constr. Co., Oklahoma City, Okla. (35a)
 J. & K. Constr. Co., Denver, Colo. (5a)
 J-P Constr. Co., The, Chicago Heights, Ill. (12c)
 Jacks & Irvine, San Francisco, Calif. (4a)
 Jackson, A. L., Co., Chicago, Ill. (12a)
 Jackson & Brittain, Savannah, Ga. (10a)
 Jackson Constr. Co., Emmetsburg, Iowa (14b)
 Jackson, E. B., Corpus Christi, Texas (42i)
 Jackson, Geo. R., Co., The, Akron, Ohio (34a)
 Jackson, John K., Ironwood, Mich. (21c)
 Jacobs, M. C., Constr. Co., Denver, Colo. (5b)
 Jacobs, M. J., & Sons, Bird Island, Minn. (22a)
 Jacobs, S. S., & Co., Jacksonville, Fla. (9a)
 Jacobsen, Carl J., Sharpsburg, Pa. (37c)
 Jacobsen Constr. Co., Salt Lake City, Utah (43a)
 Jacobsen, K. F., & Co., Inc., Portland, Oreg. (36a)
 Jacobson, Bert A., Co., Inc., Pittsburgh, Pa. (37c)
 Jacobson, Con. Co., Marshalltown, Iowa (14b)
 Jacobson, John, Co., The, Akron, Ohio (31a)
 Jacobson, L. A., Pauls Valley, Okla. (15b)
 Jacobucci, R. R., Inc., West Quincy, Mass. (20b)
 Jaggard, R. B., Marlton, N. J. (29a)
 Jahncke Service, Inc., New Orleans, La. (23a)
 James, Guy H., Constr., Oklahoma City, Okla. (35b)
 James, T. J., Constr. Co., Inc., Miami, Fla. (9b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

James, T. L., & Co., Inc., Ruston, La. (L) (17e) (23a)
 James, Worth, Constr. Co., Little Rock, Ark. (3a)
 James & Yost, Inc., Portland, Oreg. (36a)
 Jameson, P. W., Constr. Co., Memphis, Tenn. (41c)
 Jamison, E. J., Los Angeles, Calif. (4d)
 Jansen, Jos. P., Co., Milwaukee, Wis. (48a)
 Jansen & Schaefer, Pekin, Ill. (12c)
 Jantelle, P., Inc., Newark, N. J. (L)
 Jarbet Co., The, San Antonio, Texas (42f)
 Jardine Bridge Co., Inc., Fargo, N. Dak. (33a)
 Jarl, Vernie, Gresham, Oreg. (36a)
 Jarvick, E., Constr. Co., Mankato, Minn. (21c)
 Jarvis-Courtney Corp., Clarksburg, W. Va. (47a)
 Jarvis, Paul, Inc., Seattle, Wash. (46a)
 Jayhawk Constr. Co., Inc., Topeka, Kans. (15a)
 Jayhawk Constr. Co., Inc., The, Great Bend, Kans. (42m)
 Jefferson Asphalt Co., Inc., Mt. Vernon, Ill. (12c)
 Jeffress-Dyer, Inc., Washington, D. C. (8a)
 Jeffries Constr. Co., Detroit, Mich. (22a)
 Jenkins, M. A., & R. E. Hertel, Sacramento, Calif. (4b)
 Jennings, J. D., Co., Louisville, Ky. (16b)
 Jensen, A., New Orleans, La. (17a)
 Jensen Bros., Salt Lake City, Utah (43a)
 Jensen, Chris, Co., St. Paul, Minn. (22a)
 Jensen Constr. Co., Des Moines, Iowa (14a)
 Jensen Constr. Co., Minneapolis, Minn. (22a)
 Jensen & Krage, Sioux City, Iowa (14a)
 Jensen, R. M., Constr. Co., Salt Lake City, Utah (43a)
 Jensen, Viggo M., Co., Albert Lea, Minn. (22a)
 Jensen, Wayne A., Brigham City, Utah (43a)
 Jensen & Ridge Constr. Co., Wichita, Kans. (15a)
 Jentoft & Forbes, Seattle, Wash. (46b)
 Jerome Constr. Co., Savannah, Ga. (10a)
 Jesse, Frank, Amarillo, Texas (42g)
 Jesse, Walter A., Akron, Ohio (34a)
 Jimison, C. H., Huntington, W. Va. (47a)
 Jobst, V., & Sons, Peoria, Ill. (L)
 Johns Bros. Constr. Co., Inc., Binghamton, N. Y. (31d)
 Johns Engr. Co., Denver, Colo. (5a)
 Johnson, A. C., & Sons, Eureka, Calif. (4b)
 Johnson, A. W., Co., Inc., Seattle, Wash. (46a)
 Johnson, Adolph, & Son Co., Youngstown, Ohio (34f)
 Johnson, Al, Helena, Mont. (25b)
 Johnson, Al Construction Co., Minneapolis, Minn. (N) (22a)
 Johnson Bros. Constr. Co., Salina, Kans. (15a)
 Johnson, C. O., Constr. Co., Minneapolis, Minn. (22a)
 Johnson, Chas. B., & Sons, Chicago, Ill. (12a)
 Johnson Constr. Co., Tucson, Ariz. (2a)
 Johnson Constr. Co., Litchfield, Minn. (22a)
 Johnson Constr. Co., Winona, Minn. (22a)
 Johnson Constr. & Maintenance Co., Anchorage, Alaska (50a)

Johnson, Drake & Piper, Inc., Minneapolis, Minn.; New York, N. Y.: Oakland, Calif. & Terre Haute, Ind. (4a) (13b) (22a) (29a) (31d) (37c)
 Johnson, Ed, Waco, Texas (42L)
 Johnson Engr. & Constr. Co., Storm Lake, Iowa (14b)
 Johnson, G. C., Co., Welch, W. Va. (47a)
 Johnson & Geddes, Fayetteville, N. C. (32a)
 Johnson, Geo. D., Co., Peoria, Ill. (12a)
 Johnson-Gillanders Co., Grand Forks, N. Dak. (33a)
 Johnson-Greene Co., Ann Arbor, Mich. (21c)
 Johnson, H. W., South Sioux City, Nebr. (26b) (40a)
 Johnson & Henrickson, Racine, Wis. (48b)
 Johnson, I. M., Bozeman, Mont. (25b)
 Johnson, J. Walter, Los Angeles, Calif. (4d)
 Johnson, Joel, & Son, San Francisco, Calif. (4a)
 Johnson, John A., & Sons, Inc., Washington, D. C. & Atlanta, Ga. (8a) (10a)
 Johnson & Johnson Constr. Co., Rome, Ga. (10a)
 Johnson, Jos. E., & Son, St. Paul, Minn. (22a)
 Johnson, L. T., Ogden, Utah (43a)
 Johnson, Le Grand, Logan, Utah (43a)
 Johnson & Lunn, Bismarck, N. Dak. (33a)
 Johnson, M. L., Cedar Rapids, Iowa (14a)
 Johnson & Nelson, San Anselmo, Calif. (4b)
 Johnson, Richard, Co., Hartford, Conn. (6a)
 Johnson, S. E., Co., The, Maumee, Ohio (34d)
 Johnson, W. L., Construction Co., Hicksville & Columbus, Ohio (37c)
 Johnson, W. L., Construction Co. and Associates, Hicksville & Columbus, Ohio (N) (34d)
 Johnson, Walter S., Bldg. Co., Inc., Niagara Falls, N. Y. (31a)
 Johnson Western Constrs., San Pedro, Calif. (4d)
 Johnson & Willard, Knoxville, Tenn. (41b) (41e)
 Johnston, A. P., Baton Rouge, La. (17e)
 Johnston, Guy, Lumber & Supply Co., The, Steubenville, Ohio (L)
 Johnston, Maynard, & Co., Atlanta, Ga. (10a)
 Johnston, Wagner, Constr. Co., Sioux City, Iowa (14a)
 Joliet Bridge & Constr. Co., Joliet, Ill. (12c)
 Jones, A. Berney, Montgomery, Ala. (1a)
 Jones Bros., Beverly Hills, Calif. (4d)
 Jones Bros. & Co., Wilson, N. C. (32a)
 Jones & Buchanan, Baton Rouge, La. (23a)
 Jones Constr. Co., Denver, Colo. (5b)
 Jones, D. F., Constr. Co., Little Rock, Ark. (3a)
 Jones, Dolph, Tacoma, Wash. (46d)
 Jones, E. B. & A. A., Denver, Colo. (5a)
 Jones & Gillis, Inc., Clarksdale, Miss. (23a)
 Jones & Hezlep, Denver, Colo. (5a)
 Jones, J. A., Constr. Co., Inc., Charlotte, N. C.; Atlanta, Ga. & Shreveport, La. (10a) (17a) (17b) (32a)
 Jones, J. D., Constr. Co., Big Spring, Texas (42p)
 Jones, J. Lawrence, Dallas, Texas (42a)
 Jones, Jiroud, & Co., Atlanta, Ga. (10a)
 Jones, Jo B., Co., Austin, Texas (42k)
 Jones-Kissner Constr. Co., St. Louis, Mo. (21c)
 Jones, L. S., & Sons, Inc., Racine, Wis. (48b)

Jones, Lew, Constr. Co., San Jose, Calif. (4b)
 Jones, O. C., & Sons, Berkeley, Calif. (4b)
 Jones, R. J., & Sons, Alexandria, La. (17f)
 Jones, S. K., Constr. Co., Memphis, Tenn. (23a)
 Jones, W. B., Palo Cedro, Calif. (4b)
 Jones, W. Boyd, Co., Omaha, Nebr. (26a)
 Jones & Williams Constr. Co., Waco, Texas (42L)
 Jones, Winton, Walnut Creek, Calif. (4b)
 Jordan Constr. Co., Jackson, Miss. (23b)
 Jordan Constr. Co., Hensel, N. Dak. (33a)
 Jorgensen, O., & Sons, Clinton, Iowa (14b)
 Jorstad, John, Sioux City, Iowa (14b)
 Joslin, C. W., & Son, Spokane, Wash. (46c)
 Joyce Bros. Constr. Co., Springfield, Ill. (12c)
 Joyce, Leon, Rochester, Minn. (22a)
 Joyner, Van, Co., The, North Little Rock, Ark. (3a)
 Juerling, Vincent H., & Sons, Richmond, Ind. (13b)
 Julian, Jas., Constr. Co., Wilmington, Del. (7a)
 Julian, John, Constr. Co., Wilmington, Del. (7a)
 Juneau, L. P., Alexandria, La. (17f)
 Jungclaus, Wm. P., Co., Inc., Indianapolis, Ind. (13b)
 Jurgensen, John R., Newtown, Ohio (34b)
 Jussel, Joe A., Bellingham, Wash. (46a)
 Justice-Dunn Co., Oakland, Calif. (4b)
 Jutton-Kelly Co., Dearborn, Mich. (21a) (21c)

K

K-M Constr. Co., Dubuque, Iowa (14b)
 Kaaz, Julius E., Jr., Leavenworth, Kans. (15a)
 Kahl & Mahon, Liberty, Ind. (13a)
 Kahn, M. B., Constr. Co., Columbia, S. C. (32a)
 Kaiser-Ducett Co., Chicago, Ill. (12a)
 Kaiser, E. A., Co., Inc., Beverly Hills, Calif. (4d)
 Kaiser, Engrs., Div. of Henry J. Kaiser Co., Oakland & Fontana, Calif. (4b) (4d)
 Kaiser Engrs., Inc., New Orleans, La. (17a)
 Kalkman, Neil & Al, Constr. Co., Holland, Mich. (21c)
 Kane, Geo. W., Durham, N. C. (32a)
 Kansas City Bridge Company, Kansas City, Mo.; Lake Charles & Plaquemine, La. (N) (24b)
 Kaplan Constr. Co., Lafayette, La. (17f)
 Kaser Constr. Co., West Des Moines, Iowa (14a)
 Kathman, Herman, Seattle, Wash. (46a)
 Katzman, Emanuel, Co., Youngstown, Ohio (34f)
 Kaucher, Walter, Los Angeles, Calif. (4d)
 Kaufman Constr. Co., Inc., Philadelphia, Pa. (29a)
 Kaufmann, W. J. C., Co., Detroit, Mich. (21a)
 Kaw Paving Co., Inc., Topeka, Kans. (15b)
 Kaylor, John R., Gastonia, N. C. (32a)
 Kayser Constr. Co., Sault Ste. Marie, Mich. (21d)
 Kea, Silas S., & Sons, Ivor, Va. (45a)
 Kealiber, Paul A., Checotah, Okla. (35b)

A.G.C. DIRECTORY

- Kealy Constr. Co., Hastings, Nebr. (26a)
Keaton Constr. Co., Jacksonville, Ark. (3a)
Kebbe, Ray, Warren, Mich. (21c)
Keck, G. E., Fairview, Okla. (35b)
Keeble, Edw., San Jose, Calif. (4b)
Keefer, E. H., & Son, Philadelphia, Pa. (37d)
Keeley Bros. Constr. Co., East St. Louis, Ill. (12c) (12d)
Keeley, John J., East St. Louis, Ill. (12d)
Keeley, John J., Co., East St. Louis, Ill. (12d)
Keeley, Jos. P., Contr. Co., East St. Louis, Ill. (12d)
Kehe Constr. Co., Waverly, Iowa (14a)
Keil & Peterman Co., Juneau, Alaska (50a)
Keim Constr. Co., Tecumseh, Nebr. (26b)
Kelleher Corp., Turners Falls, Mass. (31d)
Keller Constr. Corp., New Orleans, La. (17a)
Keller, John H., Constr. Co., Denver, Colo. (5a)
Kelley Bros., Sacramento, Calif. (4b)
Kelley & Meyer Co., The, Youngstown, Ohio (37c)
Kelley-Nelson Constr. Co., Little Rock, Ark. (3a)
Kelley & Peletz, San Francisco, Calif. (4a)
Kelley-Wood Co., The, New Haven, Conn. (6a)
Kellihier, Jas. S., Quincy, Mass. (20b)
Kellogg, M. W., Co., The, New York, N. Y. (4d)
Kelly, C. A. & R. J., Kansas City, Mo. (24a)
Kelly Constr. Co., San Antonio, Texas (42f)
Kelly-Generes Constr. Co., New Orleans, La. (17a)
Kelly, J. A., Co., Nashville, Tenn. (41d)
Kelly, John F., Terre Haute, Ind. (13a)
Kelly, Jos. F., Co., The, West Haven, Conn. (6a)
Kelly, Ray R., & Co., Tacoma, Wash. (46d)
Kelton, John C., & Son, Phoenix, Ariz. (2a)
Kemmer, A. E., Lafayette, Ind. (13b)
Kemp Bros., Los Angeles, Calif. (4d)
Kemper Constr. Co., Los Angeles, Calif. (4d)
Kempes, Paul R., Minot, N. Dak. (33a)
Kenaston & Huntley, Lewiston, Idaho (46c)
Kendall Constr. Co., Tacoma, Wash. (46d)
Kenhill Constr. Co., Charleston, W. Va. (47a)
Kennedy Constr. Co., Beloit, Wis. (48b)
Kennedy, John, & Co., New York City (31c)
Kenney, Frank M., Denver, Colo. (5a) (5b)
Kenney, Jas. B., Inc., Denver, Colo. (5a) (5b)
Kentucky-Virginia Stone Co., Middlesboro, Ky. (16a)
Kenworthy, C. V., Stockton, Calif. (4b)
Kenyon, E. C., Jacksonville, Fla. (9a)
Kenyon, Worth D., Constr. Co., Inc., Raleigh, N. C. (32a)
Kepp, W. A., & Sons Co., Orange City, Iowa (14b)
Kern & Kibbe, Portland, Ore. (36a)
Kerns, G. E., Long Beach, Calif. (4d)
Kero, Peter W., Inc., Lyndhurst, N. J. (29a)
Kerr Engr. & Constr. Co., Kilgore, Texas (42n)
Kessling, Paul H., Waycross, Ga. (10a)
Ke-Ston & Muny, South Gate, Calif. (4b)
Ketell Constr. Co., Portland, Ore. (36a)
Ketner Bros., Tacoma, Wash. (46d)
Kettelhut, K. H., Lafayette, Ind. (13b)
Kevry Constr., Inc., San Leandro, Calif. (4b)
Keys, Clyde J., St. Petersburg, Fla. (9c)
Kidde, Walter, Constrs., Inc., New York City & Houston, Texas (31c) (37d) (42d)
Kielinen & Sons, Ishpeming, Mich. (21d)
Kiely Constr. Co., Butte, Mont. (25a)
Kier, W. E., Constr. Co., San Diego & El Segundo, Calif. (4c) (4d)
Kies, Geo., Austin, Texas (42f)
Kiewit, Peter, & Reidesel Constr. Co., Spokane, Wash. (46e)
Kiewit, Peter, Sons' Co., Omaha, Nebr.; Sheridan, Wyo.; Arcadia & San Francisco, Calif.; Denver, Colo.; Rapid City, S. Dak.; Wichita, Kans.; Seattle & Longview, Wash.; Jefferson Barracks, Mo. & Oklahoma City, Okla. (4b) (4d) (5a) (5b) (11a) (13a) (15b) (25a) (26a) (26b) (36a) (40a) (49a) (50a) (24c) (46a) (46c) (35b)
Kiker & Yount, Inc., Reidsville, N. C. (32a)
Killian-Keller Co., Fredericksburg, Texas (42f)
Killian, M. B., San Antonio, Texas (42f)
Killman, Kile, Constr. Co., Inc., Jackson, Miss. (23a)
Kimsey, Bill, Constr. Co., Pryor, Okla. (35b)
King Constr. Co., Odessa, Texas (42p)
King-Hunter, Inc., Greensboro, N. C. (32a)
King, J. M., Baton Rouge, La. (17d)
King, M. J., Inc., San Francisco, Calif. (4a)
King-North Constr. Co., Jackson, Miss. (23b)
King, Robt. H., Danville, Ind. (13a)
King, Winter, & Son, Beaumont, Texas (42h)
Kingerly Constr. Co., Lincoln, Nebr. (26a)
Kingsolver, Arthur E., Bristol, Va. (41e)
Kinnare Corp., The, Chicago, Ill. (12a)
Kirchhoff, F. J., Constr. Co., Denver, Colo. (5a)
Kirk, R. V., Gibbon, Nebr. (26b)
Kirkpatrick Constr. Co., Milwaukie, Ore. (36a)
Kirkpatrick, R. F., & Sons, Burlington, N. C. (32a)
Kirkwood Constr. Co., Kirkwood, Mo. (21b)
Kirst Constr. Co., Altadena, Calif. (4d)
Kissick & Son Constr. Co., Hickman Mills, Mo. (24b)
Kitchell-Phillips Contrs., Inc., Phoenix, Ariz. (2a)
Kitchens, Rex D., Constr. Co., Austin, Texas (42k)
Kiziah, J. H., Hickory, N. C. (32a)
Klarquist, John A., Los Angeles, Calif. (4d)
Klaver & Wallace, Kingman, Kans. (15b)
Kleiman, H. E., Co., The, Cleveland, Ohio (34c)
Klehr, L. M., Constr. Co., Inc., Minneapolis, Minn. (22a)
Kline, Boyd H., Bloomsburg, Pa. (37a)
Kline & Schmidt, Monaca, Pa. (37c)
Klinger, W. A., Co., Sioux City, Iowa (14b)
Klise Constr., Bettendorf, Iowa (14b)
Kloepfer Constr. Co., Logan, Utah (43a)
Kloepfer & Gramkow, Boise, Idaho (11a)
Kloster Co., St. Louis, Mo. (24c)
Klug & Smith Co., Milwaukee, Wis. (48a)
Knapp & East, Lake Charles, La. (17c)
Knapp, Walter, Monroe, Mich. (21c)
Knight, Inc., Reidsville, N. C. (32a)
Knight, L. H., Co., Little Rock, Ark. (3a)
Knisely-Moore Co., Douglas, Wyo. (49a)
Knops, J. K., Constr. Co., Kansas City, Mo. (24a)
Knost, B. L., Meridian, Miss. (23d)
Knowles, John B., Wenatchee, Wash. (46a)
Knudsen, Carl M., & Co., Minot, N. Dak. (33a)
Knudson, Wm., & Sons, Des Moines, Iowa (14b)
Knupp Constr. Co., Inc., Great Bend, Kans. (42m)
Knuth, E. C., & Co., Milwaukee, Wis. (48a)
Knutson Constr. Co., Minneapolis, Minn. (22a)
Knutson Constr. Co., Houston, Texas (42d)
Knutson-Gould Constr. Co., Kansas City, Mo. (24b)
Koch-Schroeder Constr. Co., St. Joseph, Mo. (24a)
Koehler, A. S., Houston, Texas (42j)
Koller Constr. Co., Oklahoma City, Okla. (42j)
Kolob Constr. Co., Phoenix, Ariz. (2a)
Kolyb Constr. Co., Trenton, N. J. (29a)
Komatz Constr. Co., St. Peter, Minn. (22a)
Konen, J. F., Constr. Co., Lewiston, Idaho (46c)
Korshoj Constr. Co., Blair, Nebr. (26a)
Koski Constr. Co., The, Ashtabula, Ohio (34d)
Koss Construction Company, Des Moines, Iowa (N) (14a) (15b) (24b)
Kost, Leo, Pierre, S. Dak. (40a)
Kraft & Newell, Florence, S. C. (32a)
Krahl Constr. Co., Chicago, Ill. (12a)
Kramme, C. J., Ft. Dodge, Iowa (14b)
Kramme, E. A., Co., Inc., Des Moines, Iowa (14a)
Kranz, M., Engr. & Constr. Co., New York, N. Y. (31d)
Krapf, Frederic G., Wilmington, Del. (7a)
Kratovich Constr. Co., New Prague, Minn. (22a)
Kraus-Anderson, Inc., Minneapolis, Minn. (22a)
Kraus-Anderson of St. Paul Co., St. Paul, Minn. (22a)
Kraus, Samuel, Co., St. Louis, Mo. (24b) (24c)
Krebay Constr. Co., Indianapolis, Ind. (13b)
Krehbiel-Stalker Constr. Co., Columbia, Mo. (24b)
Kretz, John H., Washington, Ind. (13b)
Krieg, J. E., & Sons, Fargo, N. Dak. (33a)
Krill, Leonard H., Co., The, Cleveland, Ohio (34c)
Kroeger, Harry W., Erection Co., St. Louis, Mo. (24c)
Kroening Engr. Corp., Milwaukee, Wis. (48a)
Kroetz, Wilbur L., Inc., Ft. Lauderdale, Fla. (9b)
Krummel, Paul, Shrewsbury, Mo. (24c)
Kruzick, Geo., Constr. Co., Winamac, Ind. (13a)
Kucharo & Assos., Inc., Des Moines, Iowa (14b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

Kucharo Constr. Co., Des Moines, Iowa (14a)
 Kuckenberg Constr. Co., Portland, Oreg. (36a)
 Kuhlman, Leo E., Inc., Detroit, Mich. (21a)
 Kuhn Constr. Co., Charleston, W. Va. (47a)
 Kuhns, J. A., Constr. Co., Long Beach, Calif. (4d)
 Kuljian Corp., Philadelphia, Pa. (37d)
 Kuney-Johnson Co., Seattle, Wash. (46b)
 Kuney, Max J., Co., Spokane, Wash. (25a) (46c) (50a)
 Kutchina & Brayton Co., Lansing, Mich. (21b)
 Kutsche, A. W., & Co., Detroit, Mich. (21a)
 Kyburz Constr. Co., Aberdeen, S. Dak. (L)

L

L. A. Paving Co., Los Angeles, Calif. (4d)
 L & M Constr. Co., Memphis, Tenn. (41c)
 L & S Constr. Co., Moses Lake, Wash. (46e)
 LaBarge Bros. Co., Inc., Baldwinville, N. Y. (31d)
 Laburnum Constr. Corp., Richmond, Va. (45a)
 Lacoste, Inc., Gulfport, Miss. (23c)
 Lacy, L. H., Co., Dallas, Texas (42f)
 La Fond, Marcel, Little Falls, Minn. (22a)
 La Fountain, A. A., Inc., Hackensack, N. J. (L)
 Lagneau, Richard, & Son, Inc., Dusen, La. (17f)
 Laing-Garrett Constr. Specialties, Inc., Phoenix, Ariz. (2a)
 Lake Constr. Co., Eagle Lake, Texas (42d)
 Lake, D. M., Constr. Co., Shelbyville, Ill. (12c)
 Lalonde, Albert, Co., Sidney, Mont. (25a) (33a)
 Lamb, L. W., Co., Holland, Mich. (21c)
 Lamb, Robt. E., & Son, Inc., Philadelphia, Pa. (37d)
 Lamb & Stubler, Midway, Pa. (37c)
 Lambert, E. M., & Son, Abilene, Texas (42p)
 Lambert, M. T., Co., Atlanta, Ga. (10a)
 Lambeth Constr. Co., Greensboro, N. C. (32a)
 Lambie, C. S., & Co., Amarillo, Texas (42g)
 Lametti & Lametti, Inc., St. Paul, Minn. (22a)
 Land Constr. Co., St. Joseph, Mo. (15b) (24b)
 Landau Bros. Bldg. Co., Pittsburgh, Pa. (37b)
 Landers & Griffin Co., Portsmouth, N. H. (28a)
 Landt, H. R., Oklahoma City, Okla. (35b)
 Lane Constr. Corp., The, Meriden, Conn. (31d)
 Lane, E. V., Co., Palo Alto, Calif. & Anchorage, Alaska (4b) (50a)
 Lane, Richard M., Los Angeles, Calif. (4d)
 Lang Constr. Co., Inc., Hampton, Va. (45a)
 Langenderfer, Arthur S., Inc., Toledo, Ohio (34d)
 Langenfelder, C. J., & Son, Inc., Baltimore, Md. (19b) (37c)
 Laporte, J. A., Inc., Arlington, Va. (45a)
 Largent, L. J., Constr. Co., Kansas City, Mo. (24a)

Larkin, Frank J., Constr. Co., Philadelphia, Pa. (37d)
 Larsen, A. A., Phoenix, Ariz. (2a)
 Larsen, B. O., San Diego, Calif. (4c)
 Larsen, C. A., San Diego, Calif. (4c)
 Larsen, C. C., & Sons, Council Bluffs, Iowa (14b)
 Larsen, Chris, Co., New Orleans, La. (17a)
 Larsen Constr. Co., Seattle, Wash. (46b)
 Larsen Constr. & Engr. Co., Ogden, Utah (43a)
 Larsen, Ira H., Co., San Francisco, Calif. (4a)
 Larsen & Larsen, Inc., San Francisco, Calif. (4a)
 Larson Constr. Co., Pelican Rapids, Minn. (22a)
 Larson Constr. Co., Astoria, Oreg. (35a)
 Larson-Danielson Constr. Co., Inc., La Porte, Ind. (13b)
 Larson, Elmer, Inc., DeKalb, Ill. (12c)
 Larson, Ernest, Everett, Wash. (46b)
 Larson, Gust G., & Sons, Inc., Rockford, Ill. (12b)
 Larson, John W., Bismarck, N. Dak. (33a)
 Larson, Norman L., Austin, Texas (42f)
 Larson, O. F., & Son, Tacoma, Wash. (46d)
 LaSalle Constr. Co., Chicago, Ill. (12a)
 Latham Constr. Co., West Palm Beach, Fla. (9e)
 Lathrop, Geo. W., & Sons, Inc., Toledo, Ohio (34e)
 Latta, J. E., Constr. Co., Inc., St. Louis, Mo. (12d) (24b) (24c)
 Laub Constr. Co., Inc., Philadelphia, Pa. (37d)
 Lauch, C. B., Constr. Co., Boise, Idaho (11a)
 Laur & Mack Constr. Co., Inc., Niagara Falls, N. Y. (31a)
 Laurence, Paul A., Co., Minneapolis, Minn. (22a)
 Lauritzen, H. F., Pittsburg, Calif. (4b)
 Lauter Constr. Co., Philadelphia, Pa. (19a) (37d)
 Lavender Bros., Earl, N. C. (32a)
 Law Bros. Co. & A. J. Leaf, Herkimer, N. Y. (31d)
 Lawless & Alford, Inc., Austin & Corpus Christi, Texas (42i) (42k)
 Lawrence Constr. Co., Denver, Colo. (5b)
 Lawrence Constr. Co., Sacramento, Calif. (4a)
 Lawrence Constr. Co., Inc., Baltimore, Md. (19a)
 Laxton Constr. Co., Inc., Charlotte, N. C. (32a)
 Layman & Co., Tulsa, Okla. (35b)
 Layne-Texas Co., Ltd., The, Dallas & Houston, Texas (42j)
 Leach Bros., Douglas, Wyo. (49a)
 Lease & Leigland, Seattle, Wash. (25a) (46b) (46c)
 Leavell, C. H., & Co., El Paso, Texas (42b)
 Lebeck & Co., Minneapolis, Minn. (22a)
 LeBlanc Bros., Baton Rouge, La. (17e)
 LeBlanc, Inc., Houston, Texas (42d)
 Leck, D'Arcy, Constr. Co., Minneapolis, Minn. (22a)
 Leck, Jas., Co., Minneapolis, Minn. (22a)
 Lecoutour Constr. Co., St. Louis, Mo. (24c)
 Lee Constr. Co., San Leandro, Calif. (4b)
 Lee Constr. Co., Charlotte, N. C. (32a)
 Lee Constr. Co., Memphis, Tenn. (41c)
 Lee, Edd, Reno, Nev. (27a)

Lee, Frank H., & Co., West Memphis, Ark. (41c)
 Lee, J. Gordon, New Orleans, La. (17a)
 Lee & Johnson, Sioux City, Iowa (26b)
 Lee, L. S., & Son, Oaks Corners, N. Y. (31d)
 Lee & Neal, Santa Barbara, Calif. (4d)
 Lee, R. E., & Son, Inc., Charlottesville, Va. (45a)
 Lee, Ray M., Co., Atlanta, Ga. (10a)
 Lee, Robt., Inc., Manning, S. C. (32a)
 Lee, T. H., Corpus Christi, Texas (42j)
 Leffler, A. S., Gravel Co., Davison, Mich. (21c)
 Leftwich, Stenis & Harris, Houston, Texas (42d)
 Lehman-Roberts Co., Lexington, Ky. (16a)
 Lehr Constr. Co., St. Joseph, Mo. (L)
 Leifert Constr. Co., Miami, Fla. (9b)
 Leighton, H. N., Co., Minneapolis, Minn. (22a)
 Leimbach Constr. Corp., Baltimore, Md. (19a)
 LeMay, Ralph B., Weslaco, Texas (42e)
 Lemcke-Clough & King Co., Las Vegas, Nev. (27b)
 Lemcke Constr. Co., Albuquerque, N. Mex. & Las Vegas, Nev. (27b) (30b)
 Lemoine Bros., Bunkie, La. (17f)
 Lemoine, S. J., & Co., Bunkie, La. (17f)
 Lemon, Haskell, Oklahoma City, Okla. (35b)
 Lena, Nat, Oakland, Calif. (4a)
 Lenci, Lenci & Englund, Inc., Virginia, Minn. (22a)
 Lentz Constr. Co., Sacramento, Calif. (4b)
 Leonard Constr. Co., Chicago, Ill. (12a)
 Leonard Constr. Co., Saginaw, Mich. (21c)
 Leone, Domenic, Constr. Co., Inc., Trinidad, Colo. (5b)
 Leonhard, J. T., Constr. Co., Columbus Junction, Iowa (14a)
 Leslie, C. E., Kingsville, Texas (42i)
 Leslie, John T., Dallas, Texas (42f)
 Leto Constr. Co., Detroit, Mich. (21a)
 Levasseur, A. J., Constr. Co., Shreveport, La. (17b)
 Lewis, Anthony, Inc., Maplewood, N. J. (L)
 Lewis & Bowman, Goldsboro, N. C. (32a)
 Lewis Constr. Co., Anchorage, Alaska (50a)
 Lewis Constr. Co., Great Falls, Mont. (25a)
 Lewis & Frisinger Co., The, Ann Arbor, Mich. (21c)
 Lewis & Lewis, Fort Worth, Texas (42c)
 Lewis, Nelson T., Hayward, Calif. (4a)
 Lewis, P. R., Huntington, W. Va. (47a)
 Lewis, R. C., Constr., Inc., Oakland, Calif. (4a)
 Lewis, T. S., Jr., & Co., Inc., Savannah, Ga. (10a)
 Libbey & Libby Co., Minneapolis, Minn. (22a)
 Liberty Bldg. Co., Santa Monica, Calif. (4d)
 Lichtefeld, Fred J., & Son, Louisville, Ky. (16b)
 Lichy Constr. Co., Riverton, Wyo. (49a)
 Lien, C. H., Constr. Co., Inc., Rapid City, S. Dak. (40a)
 Lillebo, Tom, Reedsport, Oreg. (36a)
 Lilly, Roy M., Baton Rouge, La. (17e)
 Linbeck Constr. Corp., Houston, Texas (42d) (42i)
 Lincoln Bldrs., Ruston, La. (17g)
 Lincoln, Martin P., Co., Chicago, Ill. (12a)
 Lind, Geo. W., Portland, Oreg. (36a)

A.G.C. DIRECTORY

Lindberg, A., & Sons, Ishpeming, Mich. (21c)
 Lindberg Constr. Co., Jamestown, N. Dak. (33a)
 Lindekugel, G. H., & Sons, Mitchell, S. Dak. (30a)
 Linden & Sons, Inc., Rockford, Ill. (12b)
 Lindgren & Swinerton, Inc., Los Angeles, Calif. (4d)
 Lindsey, J. W. B., Co., Chattanooga, Tenn. (41a)
 Lindstrom Bros., Inc., Portland, Oreg. (36a)
 Lindstrom & Swanson, Inc., Akron, Ohio (34a)
 Lindstrom & Williams, Denver, Colo. (5b)
 Linebarger Constr. Co., Little Rock, Ark. (3a)
 Lines Co., The H. Wales, Meriden, Conn. (6a)
 Lininger, M. C., & Sons, Medford, Oreg. (36a)
 Linker, Wm., Co., Inc., Philadelphia, Pa. (37d)
 Linnan, W. B., Pocahontas, Iowa (14a)
 Lippert Bros., Inc., Boone, Iowa & Oklahoma City, Okla. (14a) (14b) (35a)
 Lippert Constr. Co., Oelwein, Iowa (14b)
 Lipscomb, Wm. P., Co., Inc., Washington, D. C. (8a)
 Lissenden, P. C., Co., Inc., West Palm Beach, Fla. (9e)
 List, C. J., Constr. Co., Kansas City, Mo. (23a) (24b)
 List & Clark Construction Company, Kansas City, Mo. (N) (15b) (24b)
 List & Weatherly Constr. Co., Kansas City, Mo. (15b) (24b)
 Litchfield Constr. Co., San Rafael, Calif. (4a)
 Little Constr. Co., Inc., Charlotte, N. C. (32a)
 Little, I. C., Dallas, Texas (42m)
 Little, Matthew A., San Francisco, Calif. (4a)
 Lively, Ed., Mosquero, N. Mex. (5b)
 Livingston, C. H., La Porte, Texas (42f)
 Lockhart, H. L., Houston, Texas (42d)
 Lockwood, C. W., Hampton, Va. (45a)
 Lockwood, L. V., Glasgow, Mont. (25a)
 Loesch & Green Constr. Co., The, Cleveland, Ohio (34d)
 Lof, John, & Sons, Omaha, Nebr. (26a)
 Logan, W. E., & Sons, Muskogee, Okla. (35b)
 Logue, Chas., Bldg. Co., Boston, Mass. (20b)
 Lohmann, H. R., Co., Tulsa, Okla. (35a)
 Lombard, J. P., Co., Youngstown, Ohio (34f)
 Long Constr. Co., Billings, Mont. (25a)
 Long Constr. Co., Reno, Nev. (27a)
 Long Construction Company, Kansas City, Mo. (N) (24a)
 Longhi, Louis, & Son, Glens Falls, N. Y. (31d)
 Longley Constr. Co., Inc., Las Vegas, Nev. (27b)
 Loomis Bros., Cedar Rapids, Iowa (14b)
 Loomis, C. M., Grand Rapids, Mich. (21c)
 Loranger, Theo., & Sons, New Bedford, Mass. (20b)
 Lorber, Melvin, Los Angeles, Calif. (4d)

Lord & Bishop, Sacramento, Calif. (4b)
 Lord, P. S., Mechanical Contrs., Portland, Oreg. (36a)
 Losch, E. C., Co., Paramount, Calif. (4d)
 Loselle Constr. Co., Wyandotte, Mich. (21c)
 Los Gatos Constr. Co., Los Gatos, Calif. (4b)
 Lotz, Wm. F., Philadelphia, Pa. (37d)
 Lough, Wm., & Sons, Marion, Ill. (12c)
 Louisville Asphalt Co., Louisville, Ky. (16b)
 Love, Inc., Charleston, W. Va. (47a)
 Lovejoy Constr. Co., Des Moines, Iowa (14b)
 Lovell & Hart Constr. Co., Lexington, Ky. (16a)
 Loving Constr. Co., St. Paul, Minn. (22a)
 Loving, T. A., & Co., Goldsboro, N. C. (32a)
 Lowder, Ray D., Inc., Albemarle, N. C. (32a)
 Lowdermilk Bros., Denver, Colo. & Los Alamos, N. Mex. (5b) (30a)
 Lowe Constr. Co., Marion, Iowa (14a)
 Lowell, E. E., Vallejo, Calif. (4b)
 Lowman, R. D., El Paso, Texas (42b)
 Lowrie Paving Co., San Francisco, Calif. (4b)
 Lowry, John, Inc., New York City (31c)
 Loyd, Ernest, Fort Worth, Texas (42f)
 Lueder Constr. Co., Omaha, Nebr. (26a)
 Luedike Engr. Co., Bellefonte, Mich. (21c)
 Lugano Bros., Inc., Belleville, N. J. (29a)
 Lühr Bros., Inc., Columbia, Ill. (23a)
 Lundberg, Joe, Constr. Co., Seattle, Wash. (46a)
 Lundeen Constr. Co., Montezuma, Iowa (14a)
 Lundgren, J. A., & Son, Topeka, Kans. (15a)
 Lundin & Grip, Inc., Rockford, Ill. (12b)
 Lupinski, Inc., Milwaukee, Wis. (48a)
 Lupton, A. H., Jr., Bridgeton, N. J. (29a)
 Luth, Fred M., & Sons, Inc., St. Louis, Mo. (24b) (24c)
 Lyles & Buckner Constr., Muskogee, Okla. (35b)
 Lyles & Lang Constr. Co., Columbia, S. C. (32a)
 Lyles, W. M., Co., Avenal, Calif. (4b) (4d)
 Lyman Richey Sand & Gravel Corp., Omaha, Nebr. (26b)
 Lynch, Harry S., Co., Inc., Wilmington, Del. (7a)
 Lynch, M. J., San Francisco, Calif. (4b)
 Lynch, Pugh & Corson, Inc., Morgantown, W. Va. (47a)
 Lynch, W. J., Co., Chicago, Ill. & Baltimore, Md. (12a) (19a)
 Lynn & Morsey, San Antonio, Texas (42e)
 Lynn, W. A., Constr. Co., Lincoln, Nebr. (24b) (26b)
 Lynn, Willis F., Oakland, Calif. (4a)
 Lyon Constr. Co., Clinton, Mont. (23a)
 Lyons & Breeden, Madisonville, Ky. (16a)
 Lyons, Frank, & Co., Portland, Oreg. (36a)
 Lyons, Wm. T., Co., Inc., The, Baltimore, Md. (19a)
 Lytle, C. F., Company, Sioux City, Iowa (N) (14a)
 Lytle, C. F., Company & Green Constr. Co., Sioux City & Des Moines, Iowa (33a) (50a)
 Lytle, W. F., Sr., Fort Worth, Texas (42c)

M

M-B Contr. Co., Seattle, Wash. (46a)
 M. G. M. Constr. Co., Concord, Calif. (4b)
 M. & H. Constr. Co., Abilene, Texas (42p)
 M. J. B. Constr. Co., Stockton, Calif. (4b) (4d)
 M & K Corp., San Francisco, Calif. (4b)
 M & K Corp., Frederickson & Watson Constr. Co., & Piombo Constr. Co., San Francisco, Calif. (4d)
 M & L Constr. Co., Little Rock, Ark. (3a)
 M. & L. Constr. Co., Philadelphia, Pa. (37d)
 M & M Dredg. & Constr. Co., Miami, Fla. (9b)
 M. & R. Constr. Co., East Boston, Mass. (20a)
 M & S Constr. Co., Inc., East Pittsburgh, Pa. (37c)
 Macal Improvement Co., Inc., Antioch, Calif. (4b)
 MacClosky, Chas., Co., San Francisco & Los Angeles, Calif. (4b) (4d)
 Macco Corp., Paramount, Calif. (2a) (4b) (4d) (36a)
 Macco Corp. & Puget Sound Bridge & Dredg. Co., Paramount, Calif. (5b)
 MacDonald Bldg. Co., Tacoma, Wash. (46d)
 MacDonald Constr. Co., St. Louis, Mo. (24c)
 MacDonald Constr. Co., Inc., Marquette, Mich. (21d)
 Macdonald Engr. Co., Chicago, Ill. (12a) (37c)
 MacDonald & Kruse, Sun Valley, Calif. (4d)
 MacDonald, Young & Nelson, Inc., San Francisco, Calif. (4b) (4d)
 MacDougald Constr. Co., Atlanta, Ga. (32a)
 Machin, E. C., Inc., Allentown, Pa. (37a)
 MacIsaac, Menke & Roach, Inc., Los Angeles, Calif. (4b) (4d)
 Mack Constr. Co., Inc., Cape May, N. J. (29a)
 Mackey, Edwin J., Sacramento, Calif. (4a)
 Mackley & Ralston, Minot, N. Dak. (33a)
 MacLair Asphalt Co., Inc., East St. Louis, Ill. (12c)
 MacLean Constr. Co., Lansing, Mich. (21c)
 MacMillin Co., The, Keene, N. H. (28a)
 MacNamee, Daniel F., & Co., Inc., New Rochelle, N. Y. (31d)
 Macomber, Geo. B. H., Co., Inc., Boston, Mass. (20b)
 Macon Constr. Co., Franklin, N. C. (32a)
 MacRae Bros., Seattle, Wash. (46a)
 Madden & Larkin, Bossier City, La. (17b)
 Maddox, C. L., Phoenix, Ariz. (2a)
 Madewell Constr. Co., Memphis, Tenn. (41c)
 Madison Constr. Co., Edwardsville, Ill. (12c)
 Madison County Constr. Co., Inc., Madison, N. Y. (31d)
 Madonna Constr. Co., San Luis Obispo, Calif. (4d)
 Madsen Constr. Co., Minneapolis, Minn. (22a)
 Maescher, Chas. V., & Co., Cincinnati, Ohio (34b)
 Magaw, W. L., Richmond, Ind. (13a)
 Magee, W. W., Co., St. Paul, Minn. (22a)
 Magoffin, S. S., Co., Englewood, Colo. (5b)
 Maguire Constr. Co., St. Louis, Mo. (24c)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Maguire, J. C., & Co., Los Angeles, Calif. (4d)
 Maguire, Jos. T., Co., Inc., Lowell, Mass. (20b)
 Mahoney Bros., Baltimore, Md. (19b)
 Mahoney Constr. Co., Lansing, Mich. (42m)
 Mahony-Troast Constr. Co., Inc., Passaic, N. J. (L)
 Maier, Chas., & Son Co., Milwaukee, Wis. (48a)
 Malanka, C. F., & Sons, Inc., Union City, N. J. (29a)
 Malaspina, Matt, & Co., Seattle, Wash. (46a)
 Malcom, C. T., Portland, Oreg. (35a)
 Malfitano, M., & Son, Inc., Pittsburg, Calif. (4b)
 Malm Construction Company, Newark, N. J. (L)
 Maloney, J. T., & Son, Webster Groves, Mo. (24b)
 Manchester Sand, Gravel & Cement Co., Inc., Manchester, N. H. (28a)
 Mangum, C. C., Raleigh, N. C. (32a)
 Manhattan Construction Co., Muskogee, Oklahoma City, & Tulsa, Okla.; Ft. Smith, Ark. & Houston, Texas (N) (35a)
 Manhattan Construction Co. of Texas, Houston, Texas (42d)
 Mankins, Howard, Constr. Co., Odessa, Texas (42p)
 Mann Constr. Co., Englewood, Colo. (5b)
 Mann Constr. Co., New Albany, Ind. (16b)
 Mannella, Frank, Constr. Co., Pittsburgh, Pa. (37c)
 Mansfield Asphalt Paving Co., Mansfield, Ohio (34d)
 Manson Constr. & Engr. Co., Seattle, Wash. (46b)
 Manson-Osberg Co., Seattle, Wash. (50a)
 Manuel, Paul, Reno, Nev. (27a)
 Marbut, T. F., Emporia, Kans. (15b)
 Marchant Bros., Mercedes, Texas (42c)
 Marcus, M., Bldg. Co., Cincinnati, Ohio (34b)
 Marden, Edw. R., Corp., Brookline, Mass. (20b)
 Mardian Constr. Co., Phoenix, Ariz. (2a)
 Marhofer, E. H., Jr. Co., Chicago, Ill. (12a)
 Mariani-O'Brien, Inc., St. Petersburg, Fla. (9c)
 Maring, Harry, Jr., Inc., Bridgeport, Conn. (6a)
 Mario Constr. Co., Inc., Pittsburgh, Pa. (37c)
 Marion Coal & Supply Co., Pittsburgh, Pa. (37c)
 Markham & Brown, Dallas, Texas (24b) (23a)
 Markland, M. B., Contracting Co., Atlantic City, N. J. (L)
 Mark Sand & Gravel Co., Fergus Falls, Minn. (22a)
 Marks, Frank B., Jr., Newman, Calif. (4b)
 Marks, Howard E., Tracy, Calif. (4b)
 Markwart, Howard S., Sacramento, Calif. (4a)
 Marquette Constr. Co., Houston, Texas (42d)
 Marquis, Robt. R., Portsmouth, Va. (45a)
 Marrazzo, Tony, Boise, Idaho (11a)
 Marsch, Louis, Morrisonville, Ill. (12c)
 Marsellis-Warner Corp., Montclair, N. J. (29a)
 Marshall Constr. Co., Houston, Texas (42d)
 Marshall, G. E., Glenview, Mont. (25a)
 Marshall, Haas, & Royce, Belmont, Calif. (2a)
 Marshall, J. L., & Sons, Inc., Pawtucket, R. I. (38a)
 Marshall, S. A., Tama, Ariz. (4b)
 Martell, F. H., Co., Inc., Washington, D. C. (8a)
 Martens, Henry M., Co., Detroit, Mich. (21a)
 Martin, Ben H., Easley, S. C. (32a)
 Martin Bros. Constr., Inc., Roanoke, Va. (45a)
 Martin Bros., Inc., Concord, Calif. (4b)
 Martin Constr. Co., Tucson, Ariz. (2a)
 Martin Constr. Co., Boise, Idaho (11a)
 Martin, F. H., Constr. Co., Detroit, Mich. (21a)
 Martin, G. I., Albuquerque, N. Mex. (30a)
 Martin, Geo. C., Washington, D. C. (8a)
 Martin, Guy T., & Co., Gardena, Calif. (4d)
 Martin, J. B., San Antonio, Texas (42e)
 Martin, John, Co., Inc., Chattanooga, Tenn. (41a)
 Martin, John B., Co., Oklahoma City, Okla. (35a)
 Martin, L., & Son, Boston, Mass. (20b)
 Martin & Nettrour Contr. Co., Pittsburgh, Pa. (37b)
 Martin, O. H., Co., Pittsburgh, Pa. (37b) (37c)
 Martin, Vic, Pasadena, Calif. (4d)
 Martineau, R. A., Muscatine, Iowa (14b)
 Martiniello, Louis, & Son, Brighton, Mass. (20b)
 Mary Constr. Co., Cape Girardeau, Mo. & East St. Louis, Ill. (12d) (24b)
 Marye-Northwestern Co., Denver, Colo. (5a)
 Mashuda, Frank, Co., Milwaukee, Wis. (37c)
 Masling, Frank, & Son, Monroe, La. (17g)
 Mason, Henry M., Co., Inc., Portland, Oreg. (36b)
 Mass, H. H., Constr. Co., Algonquin, Ill. (12c)
 Massacoe Bldrs., Inc., Simsbury, Conn. (6a)
 Massengale Cement Co., Mobile, Ala. (1a)
 Massey Pipe Line Constr. Co., Corpus Christi, Texas (42m)
 Massman Constr. Co., Kansas City, Mo. (24b)
 Mast, Harold T., Colfax, Wash. (46c)
 Master Masons Constr. Co., Philadelphia, Pa. (37d)
 Masters-Jackson Paving Co., Springfield, Mo. (24b)
 Masters & Mullen Constr. Co., The, Cleveland, Ohio (34c)
 Mastriani, S. G., Co., Scranton, Pa. (37a)
 Matrone Bros., Spokane, Wash. (46c)
 Mathers, J. S., Inc., Waynesboro, Va. (45a)
 Mathews Constr. Co., Alhambra, Calif. (4d)
 Mathis, A. F., West Des Moines, Iowa (14a)
 Mathis, Claude E., Amarillo, Texas (42g)
 Mathis Constr. Co., Athens, Ga. (10a)
 Mattern Constr. Co., Tulsa, Okla. (35a)
 Matthews Constr. Co., Hoisington, Kans. (15b)
 Matthews Construction Company, Princeton, N. J. (L)
 Mattison, R. E., & Co., Oklahoma City, Okla. (35a)
 Mattson, Isak, & Son, Minot, N. Dak. (33a)
 Maltson, W. A., Burlington, Iowa (14b)
 Maurer, Fred J., & Son, Eureka, Calif. (4b)
 Maury, Sam P., Constr. Co., Memphis, Tenn. (41c)
 Maury & Wedaman, Memphis, Tenn. (41c)
 Mautz & Oren, Inc., Effingham, Ill. (12c)
 Maxam Co., The, Portsmouth, N. H. (28a)
 Maxey, Carl E., Constr. Co., Lubbock, Texas (42d) (42p)
 Maxey & Leftwich, Albuquerque, N. Mex. (30b)
 Maxey, Robt. E., Constr. Co., Lubbock, Texas (42p)
 Maxon Construction Company, Inc., Dayton, Ohio (N) (10a) (12c) (17e) (31d)
 Maxwell Bridge Co., The, Columbus, Kans. (15b) (24b)
 May, G. W., Little Rock, Ark. (3a)
 Mayer-Osborn Co., Denver, Colo. (5a)
 Mayersohn, Louis, Albany, N. Y. (31d)
 Mayfield Constr. Co., Kokomo, Ind. (13b)
 McAbee, F. R., Inc., Seattle, Wash. (46b)
 McAbee, Tom G., Lubbock, Texas (42p)
 McAlister, Albert A., Abilene, Texas (42p)
 McAlister-Davis Co., Pine Bluff, Ark. (23a)
 McAnulty, Inc., Bradenton, Fla. (9c)
 McAnulty, J. H., Chico, Calif. (4b)
 McAtee & Heathe, Spokane, Wash. (46c)
 McBride & Son, Inc., Bastrop, La. (17g)
 McCall Engr. Co., Houston, Texas (42f)
 McCall, R. R., Co., Valdosta, Ga. (10a)
 McCalman Constr. Co., Danville, Ill. (12c) (13a)
 McCammon-Wunderlich Co., Palo Alto, Calif. (4b)
 McCandless, L. L., Constr. Co., Austin, Texas (42k)
 McCann & Co., Inc., Springfield, Ill. (12c)
 McCann Constr. Co., Fort Worth, Texas (42c)
 McCarthy, Ed. A., & Son, Cincinnati, Ohio (34b)
 McCarthy Improvement Co., Davenport, Iowa (12c) (14a)
 McCarthy-Pohl Constr., Inc., St. Louis, Mo. (24b)
 McCarthy, Robt., Co., San Francisco, Calif. (4a)
 McCartney, Birch, Veradale, Wash. (46c)
 McClain Constr. Co., Inc., Hawthorne, Calif. (4d)
 McClanahan, D. S., & Son, Columbus, Miss. (23d)
 McClanahan, Fred C., & Son, Shreveport, La. (17b)
 McClendon, J. C., Jr., Gulfport, Miss. (23c)
 McClinton Bros. Constr. Co., Fayetteville, Ark. (3a) (35b)
 McConnell Constr. Co., Oklahoma City, Okla. (35b)
 McCorkle, Paul, Constr. Co., Sac City, Iowa (14b)
 McCorkle, Tom, Constr. Co., Boise, Idaho (11a)
 McCormack Constr. Co., Pendleton, Oreg. (36a)
 McCormack, R. C., St. Louis, Mo. (24c)
 McCosker, A. J., Berkeley, Calif. (4b)
 McCosker, John H., Inc., Berkeley, Calif. (4b)
 McCoy, Geo. W., & Co., Inc., New Orleans, La. (17a)
 McCracken & Berry Constr. Co., Ormond Beach, Fla. (9f)
 McCrady Constr. Co., Pittsburgh, Pa. (37c)
 McCrae & Nofziger, Oklahoma City, Okla. (35a)
 McCready & Sons, Gaylord, Mich. (21b)

A.G.C. DIRECTORY

- McCree & Co., St. Paul, Minn. (40a)
 McCreedy, M. D., Constr. Co., Inc., Iowa City, Iowa (14b)
 McCrory, C. E., Constr. Co., Memphis, Tenn. (41c)
 McCullough, Maurice B., Salt Lake City, Utah (43a)
 McDaniel, Boyd J., Co., Abilene, Texas (42p)
 McDaniel Constr. Co., Marysville, Calif. (4a)
 McDermott, J. Ray, & Co., Inc., Harvey, La. (17e)
 McDevitt & Street Company, Charlotte, N. C. (N) (32a) (45a)
 McDonald, Carl C., Jr., Bay Saint Louis, Miss. (23c)
 McDonald Constr. Co., Brainerd, Minn. (22a)
 McDonald Constr. Co., Dallas, Texas (42j)
 McDonald, Henry C., Co., Kilgore, Texas (42j)
 McDougall, Natt, Co., Portland, Oreg. (4b) (36a)
 McDowall & Wood, Salem, Va. (32a)
 McDerry, B. S., Berkeley, Calif. (4b)
 McElvany, J. L., El Centro, Calif. (4d)
 McElday, Jos., & Son, Palo Alto, Calif. (4b)
 McGeorge Contr. Co., Inc., Pine Bluff, Ark. (3a)
 McGeorge, W. P., Jr., Pine Bluff, Ark. (24b)
 McGillivray Constr. Co., Sacramento, Calif. (4b)
 McGillivray Bros., Ketchikan, Alaska (50a)
 McGinnis & Gautier, Inc., North Hollywood, Calif. (4d)
 McGinty Constr. Co., Phoenix, Ariz. (2a)
 McGlone, Perry, Constr. Co., Kansas City, Mo. (15b)
 McGowan, M. B., Inc., San Francisco, Calif. (4b)
 McGranahan, K. J., Santa Cruz, Calif. (4a)
 McGraw, Jas., Co., Philadelphia, Pa. (29a)
 McGreevey, John F., & Co., Inc., Manassquan, N. J. (29a)
 McGuire, H. A., Constr. Co., Memphis, Tenn. (41c)
 McGuire & Hester, Oakland, Calif. (4b)
 McGuire, M. T. & John T., Algona, Iowa (14a)
 McHugh, Jas., Constr. Co., Chicago, Ill. (12a)
 McLiyar, W. K., Constr. Co., Dallas, Texas (42j)
 McInnis Constr. Co., Spokane, Wash. (46e)
 McIntire, F. B., Constr. Co., Fort Worth, Texas (42c)
 McKay, Donald J., Houlton, Me. (18a)
 McKean Constr. Co., Salt Lake City, Utah (43a)
 McKee, Arthur, & Co., Cleveland, Ohio (4d)
 McKee, Robt. E., Santa Fe, N. Mex. & Dallas, Texas (2a) (30b) (42a)
 McKee, Robt. E., Gen. Contr., Inc., Glendale, Calif., New Orleans, La. & El Paso, Texas (4d) (17a) (42b)
 McKel, Inc., Portland, Oreg. (36a)
 McKellar, Everett, Chelan, Wash. (46a)
 McKenzie Constr. Co., San Antonio, Texas (42e) (42f) (42j)
 McKenzie, D. F., Salem, Oreg. (36a)
 McKenzie-Hague-Simmons Co., Minneapolis, Minn. (22a)
 McKie Lighter Co., Boston, Mass. (20a)
 McKinney Constr. Co., Sunbury, Pa. (37a)
 McKinney, R. W., Nacogdoches, Texas (42f)
 McKinnon Constr. Co., Sandy, Oreg. (36a)
 McKinnon-Decker Co., Helena, Mont. (25a) (25b)
 McKittrick, E. S., Co., Inc., Huntington Park, Calif. (4d)
 McKown & Sons, Austin, Texas (42f)
 McKoy-Helgeson Co., Greenville, S. C. (32a)
 McLain Constr. Corp., Buffalo, N. Y. (31d)
 McLaren Bros. Constr. Co., West Palm Beach, Fla. (9e)
 McLaughlin Constr. Co., Livingston, Mont. (25a)
 McLaughlin, Inc., Great Falls, Mont. & Valdez, Alaska (25a) (50a)
 McLean Contracting Company, Baltimore, Md. (N)
 McLellan, Paul B., Co., Portland, Me. (18a)
 McMahan Constr. Co., Rochester, Ind. (13a)
 McManus, R. H., & Co., Detroit, Mich. (21a)
 McMeekin Constr. Co., Cheraw, S. C. (32a)
 McMichael Concrete Co., Tulsa, Okla. (35b)
 McMichael, W. A., Constr. Co., Shreveport, La. (17b)
 McMillan, Hugh, El Paso, Texas (42f)
 McMillan, W. G., & Son, Lubbock, Texas (42p)
 McMillin-Burkett Constr. Co., Texarkana, Texas (42f)
 McMurray, A. R., Constr. Co., Knoxville, Tenn. (41b)
 McNally Constr. Co., Saginaw, Mich. (21c)
 McNally, W. F., Co., Bridgeport, Mich. (21c)
 McNary Dam Contrs., Umatilla, Oreg. (36a) (46c)
 McNeel, H. J., Inc., Caldwell, Idaho (11a)
 McNeese Constr. Co., Memphis, Tenn. (41c)
 McNeil, J. A., Co., Alhambra, Calif. (4d)
 McNeill, J. W., Constr. Co., Sioux City, Iowa (14a)
 McNichol Constr. Co., The, Denver, Colo. (5a)
 McNulty, L. J., Inc., South St. Paul, Minn. (22a)
 McNutt Bros., Eugene, Oreg. (36a)
 McPhail Engineering, Tacoma, Wash. (46d)
 McPherson, Joe H., Salinas, Calif. (4a)
 McQuade, Jas. H., & Sons Co., Pittsburgh, Pa. (37c)
 McQuade, John S., Jr., Philadelphia, Pa. (37d)
 McQuaid Constr. Co., Fort Worth, Texas (42c)
 McRae, Farquhar, Savannah, Ga. (10a)
 McShain, Inc., Philadelphia, Pa. (37d)
 McShain, John, Inc., Arlington, Va. (8a)
 McShane Contr. Co., Pittsburgh, Pa. (37c)
 McVean & Barlow, Odessa, Texas (42m)
 McWilliams Dredging Company, New Orleans, La. (N) (23a)
 Meador Constr. Co., Atlanta, Ga. (10a)
 Meadow Constr. Co., Bakersfield, Calif. (4d)
 Meagher, W. J., & Sons, Bay City, Mich. (21c)
 Mecham, M. S., & Sons, South Gate, Calif. (4d)
 Medis, Paul L., Pittsburgh, Pa. (37c)
 Meers Constr. Co., Dallas, Texas (42a)
 Meers, E. W. G., Constr. Co., Memphis, Tenn. (41c)
 Mefford Constr. Co., Enid, Okla. (35a)
 Meglin, W. J., Inc., Naugatuck, Conn. (6a)
 Meigs, Hilton, Beaumont, Texas (42h)
 Meinecke-Johnson Co., Fargo, N. Dak. (33a)
 Meisner-Anderson Co., Bismarck, N. Dak. (33a)
 Meitz-Spears-Dehner Co., Inc., Fort Wayne, Ind. (13a)
 Melberg, Amos, Cedar Rapids, Iowa (14a)
 Mellon-Stuart Co., Pittsburgh, Pa. (37b)
 Mellwin Constr. Co., The, Denver, Colo. (5a)
 Mendenhall, Deal, Springville, Utah (43a)
 Menefee, W. J., Constr. Co., Sedalia, Mo. (24b)
 Menze, Franz, Marquette, Mich. (21d)
 Mercer-Fraser Co., Eureka, Calif. (4b)
 Merchant Constr. Co., Asheville, N. C. (32a)
 Meredith, Trent, Oxnard, Calif. (4d)
 Merrill, Ted F., & Sons, Inglewood, Calif. (4d)
 Merritt-Chapman & Scott Corp., New York, N. Y.; New London, Conn.; Boston, Mass.; Cleveland, Ohio & Dallas, Texas (N) (20a)
 Merritt, E. Philip, San Rafael, Calif. (4a)
 Meshberger Bros. Stone Corp., Linn Grove, Ind. (13a)
 Messinger, A., Lbr. & Milwk. Constr. Co., The, Pittsburg, Kans. (15a)
 Messer, Frank, & Sons, Inc., Cincinnati, Ohio (34b)
 Messina Bros. Constr. Co., Inc., Kansas City, Mo. (24a)
 Metcalfe Constr. Co., Inc., Kansas City, Mo. (24b)
 Metcalfe, D. M., Constr. Co., Bennington, Mich. (21c)
 Metropolitan Paving Co., Oklahoma City, Okla. (35b)
 Metzger Constr. Corp., Buffalo, N. Y. (31a)
 Meyers, B. E., Inc., Coral Gables, Fla. (9b)
 Meyer, C. R., & Sons Co., Oshkosh, Wis. (48b)
 Meyer, Edw. H., Constr. Co., Neenah, Wis. (48b)
 Meyer-Hecht Co., Cincinnati, Ohio (34b)
 Meyer, Robt. Wm., Cadillac, Mich. (21c)
 Meyer, Theo G., & Sons, San Francisco, Calif. (4a)
 Meyers, Walter, Spokane, Wash. (46c) (46e)
 Meyerson, Albert, Co., Houston, Texas (42d)
 Meyne, Gerhardt F., Co., Chicago, Ill. (12a)
 Michael & Embree, Durham, N. C. (32a)
 Mickelson, John H., Logan, Utah (43a)
 Mickle & Ross Constr. Co., Newton, Iowa (14a)
 Micotto, R. C., Constr. Co., St. Louis, Mo. (24c)
 Mid-America Engr. Corp., Skokie, Ill. (21c)
 Mid-Kan Development Co., Inc., Junction City, Kans. (15b)
 Mid-State Bldrs., Inc., Utica, N. Y. (31d)
 Mid-States Constr. Co., Inc., Mt. Vernon, Ill. (42m)
 Middle States Bituminous Corp., Ashland, Ky. (16a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Middle West Roads Co., Noblesville, Ind. (13a)
 Midland Constr. Co., Missoula, Mont. (25a)
 Midland Constrs., Inc., Chicago, Ill. (12a)
 Midland Constr. Co., Midland, Mich. (21c)
 Midstate Constr. Co., San Francisco, Calif. (4a)
 Midstate Constrs., Inc., Hickory, N. C. (32a)
 Midwest Constr. Co., Holton, Kans. (15b)
 Midwest Constr. Co., Minneapolis, Minn. (22a)
 Midwest Constr. Co., Dallas, Texas (42j)
 Midwest PreCote Co., Kansas City, Mo. (14a) (15b) (24b)
 Midwestern Constrs., Inc., Tulsa, Okla. (42m)
 Midwestern Constrs., Inc., Wheaton, Ill. (42m)
 Mier-Pearse, Inc., Denver, Colo. (5a)
 Mikkelsen, E. C., Constr. Co., Inc., Kirkwood, Mo. (24c)
 Mildenstein, Max, Cedar Rapids, Iowa (14b)
 Miles, L. J., Constr. Co., Fort Worth, Texas (42f)
 Miles & Son, Inc., Merced, Calif. (4b)
 Millett Constr. Co., Cuyahoga Falls, Ohio (34a)
 Miller, A. L., Sacramento, Calif. (4b)
 Miller Bros. Constr., Minot, N. Dak. (33a)
 Miller Bros., Kansas City, Kans. (15b)
 Miller Constr. Co., Windsor, Vt. (28a)
 Miller-Davis Co., Kalamazoo, Mich. (21b)
 Miller Excavating Co., Inc., Omaha, Nebr. (26a)
 Miller, Geo., Constr. Co., Los Angeles, Calif. (4d)
 Miller, Geo. E., Reno, Nev. (27a)
 Miller, H. W., Constr. Co., Inc., Covington, Ky. (34b)
 Miller, Haynes, Smith, Inc., Henderson, Nev. (27b)
 Miller & Henkel, Fresno, Calif. (4b)
 Miller, John G., Constr. Co., Waterloo, Iowa (14a) (14b)
 Miller & Miller, Los Angeles, Calif. (4d)
 Miller & Norton, Dallas, Texas (42a)
 Miller, Paul C., Comstock Park, Mich. (21c)
 Miller & Smith, Albuquerque, N. Mex. (30a)
 Miller-Stauch Constr. Co., Kansas City, Mo. (24a)
 Miller & Strong, Inc., Eugene, Oreg. (36a)
 Miller, T., & Sons, Lake Charles, La. (17c) (17e)
 Miller, W. Harley, Martinsburg, W. Va. (47a)
 Miller, W. L., Co., Elvaston, Ill. (12c)
 Milligan, O. D., Constr. Co., Manhattan, Kans. (15a)
 Millis, Ray, Omaha, Nebr. (26b)
 Mills & Jones, Inc., St. Petersburg, Fla. (9c)
 Mills, Ralph E., Co., Salem, Va. (45a)
 Millstone, I. E., Constr. Co., St. Louis, Mo. (24c)
 Milner Constr. Co., Richmond, Va. (45a)
 Mincey Constr. Co., Sacramento, Calif. (4b)
 Minnis & Shilling, Eugene, Oreg. (36a)
 Minnotte Bros. Co., Pittsburgh, Pa. (37b)
 Minton Constr. Co., Cleveland, Ohio (34c)
 Mion Constr. Co., Atlanta, Ga. (10a)
 Miron, P. G., Constr. Co., Inc., Appleton, Wis. (48b)
 Misch, Arthur O., Co., Detroit, Mich. (21a)
 Misco, Inc., Seattle, Wash. (46a)
 Mission Equip. & Constr. Co., Mission, Kans. (15b)
 Mississippi Valley Contr. Co., Inc., Paragould, Ark. (3a)
 Mississippi Valley Engr. & Constr. Co., Memphis, Tenn. (23a) (41c)
 Missner Constr. Co., Chicago, Ill. (12a)
 Missouri Petroleum Prods. Co., Overland, Mo. (24b)
 Missouri Valley Limestone Co., Inc., Des Moines, Iowa (14a)
 Mitchell, C. E., & Sons, Great Falls, Mont. (25b)
 Mitchell Constr. Co., Fort Worth, Texas (42c)
 Mitchell Constr. Co., The, Springfield, Mo. (15a)
 Mitchell Constr. Co., Herrin, Ill. (12c)
 Mitchell, E. J., Constr. Co., Wellington, Kans. (15a)
 Mitchell, E. Stewart, Inc., Baltimore, Md. (19b)
 Mitchell, G. W., San Antonio, Texas (42e)
 Mitchell, H. F., Constr. Co., Burlington, N. C. (32a)
 Mitchell, Harry J., Oroville, Calif. (4a)
 Mitchell, Roy M., Tyler, Texas (42j)
 Mitchell, Russ, Inc., Houston, Texas (42f) (42j)
 Mitton, Walter V., Inc., Augusta, Me. (18a)
 Mittry Constrs., Los Angeles, Calif. (4d)
 Mittry, K. S., Constr. Co., Ft. Collins, Colo. (5b)
 Mitzel Co., The, Cleveland, Ohio (34c)
 Mixon, B. H., Henderson, N. C. (32a)
 Mobley, Clarence, Contr. Co., Augusta, Ga. (15a) (32a)
 Mock, P. C., Constr. Co., Memphis, Tenn. (41c)
 Mock, Thomas M., Tacoma, Wash. (46d)
 Mode & McCracken, Conway, Ark. (3a)
 Modern Bldrs. Constr. Co., Inc., Long Beach, Calif. (4d)
 Modern Bldrs., Inc., Rocky Mount, N. C. (32a)
 Modern Bldg. Co., Chico, Calif. (4a)
 Modern Repair Co., Atlanta, Ga. (10a)
 Modernization Constr. Co., Atlanta, Ga. (10a)
 Moeller, Geo., Constr. Co., St. Louis, Mo. (24c)
 Moellering Constr. Co., Fort Wayne, Ind. (13a)
 Mohamed Earthmoving Contr., Phoenix, Ariz. (2a)
 Mohawk Paving Co., Geneva, N. Y. (31d)
 Mohler Constr. Co., Washington, D. C. (8a)
 Mohr Constr. Co., Inc., Kokomo, Ind. (13a)
 Mohr, Henry, Boston, Mass. (20a)
 Moline, E. A., Jamestown, N. Dak. (33a)
 Molony & Rubien Constr. Co., Providence, R. I. (38a)
 Molzahn, Theo J., & Sons, Inc., La Crosse, Wis. (48b)
 Monaco Constr. Co., The, Bridgeport, Conn. (6a)
 Monaghan, J. H. & N. M., & Assoc. Cos., Derby, Colo. (5b) (15b) (49a)
 Monaghan & Kilgroe Constr. Co., Derby, Colo. (5b)
 Monaghan & Lindsay Constr. Co., Derby, Colo. (5b)
 Monaghan & Smith Constr. Co., Derby, Colo. (5b)
 Monarch Engr. Co., Falls City, Nebr. (26b)
 Moncla Constr. Co., The, Shreveport, La. (17b)
 Monroe Constr. Co., Monroe, Wash. (46a)
 Monson Bros., San Francisco, Calif. (4a)
 Montag, C. J., & Sons, Portland, Oreg. (36a)
 Montague Constr. Co., Chicago, Ill. (12a)
 Montana Engr. & Constr. Co., Helena, Mont. (25a)
 Montank & Son, Los Angeles, Calif. (4d)
 Montgomery, F. O., Co., Humboldt, Iowa (14a)
 Montgomery, J. M., & Co., Inc., Los Angeles, Calif. (4d)
 Montgomery, P. O'B., Dallas, Texas (42a)
 Montgomery, T. M., Auburn, Calif. (4b)
 Monty Bros., St. Albans, W. Va. (47a)
 Moody, Carn L., North Hollywood, Calif. (4d)
 Mooney-Sweatt-Bundy Corp., Dover, N. H. (28a)
 Mooney, W. E., Co., Inc., Washington, D. C. (8a)
 Moore, Bart, Co., San Antonio, Texas (42f)
 Moore Bridge Co., Inc., Ada, Okla. (35b)
 Moore Bros. Constr. Co., Lufkin, Texas (42f)
 Moore Bros., Inc., East St. Louis, Ill. (12c) (12d)
 Moore, Cecil L., San Leandro, Calif. (4b)
 Moore Constr. Co., Myrtle Beach, S. C. (32a)
 Moore Constr. Co., Rapid City, S. Dak. (40a)
 Moore Constr. Co., Austin, Texas (42k)
 Moore, G. E., Co., Inc., Greenwood, S. C. (32a)
 Moore, Harold B., Windham, N. Y. (31d)
 Moore & Moore, LaPorte, Texas (42d)
 Moore, P. J., & Son, Tracy, Calif. (4b)
 Moore & Roberts, Inc., San Francisco, Calif. (4a)
 Moorman, J. W., & Son, Muskogee, Okla. (35b)
 Mora, Gerald, Houston, Texas (42d) (42j)
 Moran, Wm. J., Co., Alhambra, Calif. (4d)
 Morehead Constr. Co., Cedar Rapids, Iowa (14b)
 Morehouse, E. R., Co., Camden, N. J. (29a)
 Moreland Constr. Co., Wichita, Kans. (15a)
 Morgan, Arthur, Trucking Co., St. Louis, Mo. (24c)
 Morgan, B. A., Memphis, Tenn. (41c)
 Morgan Constr. Co., Redding, Calif. (4b)
 Morgan, E. R., Gastonia, N. C. (32a)
 Morgan, Edw. E., Co., Inc., Jackson, Miss. (23a)
 Morgan-Holloman Constr. Co., Tuscaloosa, Ala. (1a)
 Morgan, J. E., & Sons, El Paso & Dallas, Texas (42a) (42b)
 Morin, S. G., & Sons, Spokane, Wash. (46c)
 Moritz, C. J., Inc., Effingham, Ill. (12c)
 Morrin, M., & Son, Inc., Ogden, Utah (43a)
 Morris Constr. Co., Denver, Colo. (5a)
 Morris Constr. Co., Greenville, S. C. (32a)
 Morris, Robt., Constr. Co., Austin, Texas (42k)
 Morris, W. E., Birmingham, Ala. (1a)
 Morrison Constr. Co., Seattle, Wash. (46a)
 Morrison & Fisher, Walla Walla, Wash. (36a)
 Morrison-Knudsen Co., Inc., Boise, Idaho; Los Angeles & San Francisco, Calif.; Amboy & Seattle, Wash. & New York, N. Y. (N) (4b) (4d) (11a) (36a) (46a) (49a) (50a)

A.G.C. DIRECTORY

Morrow Bros., Inc., Baltimore, Md. (19a)
 Morse, W. H., Constr. & Lumber Co., Inc.,
 Bennington, Vt. (28a)
 Mortensen Constr. Co., Seattle, Wash. (50a)
 Mortensen, Nelse, & Co., Inc., Seattle, Wash.
 (46b)
 Morton, Jas. P., Constr. Co., Placerville,
 Calif. (4a)
 Moser, F. A., Farmersburg, Iowa (14a)
 Mosher & Kiker, El Reno, Okla. (35b)
 Moss, Edwin, & Son, Inc., Bridgeport, Conn.
 (6a)
 Moss, R. L., Constr. Co., Zenith, Wash. (46a)
 Moss-Thornton Co., Inc., Leeds, Ala. (1a)
 Mott Constr. Co., Centerville, Iowa (14a)
 Mott Core Drilling Co., Huntington, W. Va.
 (47a)
 Mott-Mohr Constr. Co., Inc., New Haven,
 Conn. (6a)
 Mountain State Constr. Co., South Charles-
 ton, W. Va. (47a)
 Mountain States Constr. Co., Inc., Pocatello,
 Idaho (11a)
 Mouton, J. B., & Sons, Lafayette, La. (17f)
 Mowat, A. F., Constr. Co., Seattle, Wash.
 (46b)
 Mowery, Raymond S., Carlisle, Pa. (37a)
 Mozzicato Constr. Co., Medford, Mass. (20b)
 Muehlenbeck, Wm. J., Saginaw, Mich. (21c)
 Mueller, C. W., Louisville, Ky. (16b)
 Mueller Constr. Co., Marshalltown, Iowa
 (14b)
 Mueller Erection Co., Inc., St. Louis, Mo.
 (24c)
 Muirhead, Wm., Construction Company, Inc.,
 Durham, N. C. (N) (32a)
 Mulcare, Thos., Corp., Boston, Mass. (20b)
 Mulford, Ben, Bradford, Iowa (14b)
 Mullen, D. L., & Co., Brownsville, Texas
 (42a)
 Mullinix Constr. Co., Oklahoma City, Okla.
 (35b)
 Mullins, John M., Inc., Troy, N. Y. (31d)
 Mullis, Carl W., Lumber Co., Lancaster,
 S. C. (32a)
 Munn, Chas. S., Dallas, Texas (42a)
 Munn, Geo. R., Atlanta, Ga. (10a)
 Munn & Perkins, Modesto, Calif. (4b)
 Munter, M. P., Co., Seattle, Wash. (46a)
 (50a)
 Murch-Jarvis Constr. Co., St. Louis, Mo.
 (12d) (24c)
 Murdock Constr. Co., The, Norwood, Ohio
 (34b)
 Murphy, Allan, Constr., Evansville, Ind.
 (13c)
 Murphy Bros., Spokane, Wash. (46c)
 Murphy, Geo. J., & Co., Youngstown, Ohio
 (34f)
 Murphy, J. C., Baton Rouge, La. (17d)
 Murphy, J. R., Fort Worth, Texas (42c)
 Murphy, Martin, Walnut Creek, Calif. (4b)
 Murphy-McDonnell Co., Upper Darby, Pa.
 (37d)
 Murphy, Michael, Jr., San Francisco, Calif.
 (4b)
 Murphy-Quigley & Co., Philadelphia, Pa.
 (37d)
 Murphy-Smestad Constr. Co., Fargo, N. Dak.
 (33a)
 Murphy, Wm., & Son, St. Paul, Minn. (22a)

Murray, C. D., Co., Inc., Syracuse, N. Y.
 (31d)
 Musick, Don C., Constr. Co., St. Louis, Mo.
 (24c)
 Musick-Meyer Constr. Co., Grand Junction,
 Colo. (5a)
 Muskegon Constr. Co., Muskegon, Mich.
 (21b)
 Mutersbaugh, A. M., Lake Charles, La. (17c)
 Mutual Constr. Co., Inc., Bridgeport, Conn.
 (6a)
 Myers Bros., Los Angeles, Calif. (4d)
 Myers Bros., Ft. Atkinson, Iowa (14a)
 Myers Constr. Co., Inc., Charlotte, N. C.
 (32a)
 Myers, Geo. M., Inc., El Dorado, Kans. (15b)
 Myers, J. E., Kingsport, Tenn. (41e)
 Myers-Johnson Co., Lewistown, Pa. (37c)
 Myers, Ralph, Contr. Corp., Salem, Ind.
 (13a) (37c)

N

Nagel, J. J., Perham, Minn. (22a)
 Nagelkirk & Ranta, Grand Rapids, Mich.
 (21c)
 Nally, Sam, Co., Bardstown, Ky. (16a)
 Napp-Greco Co., The, Newark, N. J. (29a)
 Nappe Constr. Co., Inc., North Hollywood,
 Calif. (4d)
 Naranche & Konda, Butte, Mont. (25a)
 Nardulli & Sons Co., Inc., Pittsburgh, Pa.
 (37c)
 Nashert, Walter, Co., Oklahoma City, Okla.
 (35a)
 Nason & Cullen, Philadelphia, Pa. (37d)
 Nasvik Constr. Co., Bemidji, Minn. (22a)
 National Concrete Fireproofing Co., The,
 Cleveland, Ohio (34c)
 National Constr. Co., Omaha, Nebr. (26b)
 National Paving & Contr. Co., Baltimore, Md.
 (19b)
 Naugle-Leck, Inc., Minneapolis, Minn. (22a)
 Naumann, John, & Sons, Inc., Toledo, Ohio
 (34e)
 Navarro Corp., Pittsburgh, Pa. (37b)
 Neal, C. P., Constr. Co., Forest City, N. C.
 (32a)
 Nebel, Jos. F., Co., Washington, D. C. (8a)
 Nebraska Constr. Co., Lexington, Nebr.
 (26b)
 Neely, John C., Constr. Co., Wichita, Kans.
 (15a)
 Neff, Robt. A., Shreveport, La. (17b)
 Neighborgall Constr. Co., Huntington, W. Va.
 (47a)
 Neiman, H. B., Co., Philadelphia, Pa. (37d)
 Nelson, Bennie H., Constr. Co., Red Wing,
 Minn. (22a)
 Nelson, C. L., & Co., Inc., Brainerd, Minn.
 (22a)
 Nelson, Carl A., & Co., Inc., Burlington,
 Iowa (14b)
 Nelson, Carl E., Logan, Utah (43a)
 Nelson & Co., Inc., Racine, Wis. (48b)
 Nelson, Geo., & Son, Inc., Madison, Wis.
 (48b)
 Nelson, Harvey W., Grafton, N. Dak. (33a)
 Nelson, Mullen & Nelson, Inc., Minneapolis,
 Minn. (22a)

Nelson, Mullen & Webster, Minneapolis,
 Minn. (22a)
 Nelson, N. A., Constr. Co., Sheridan, Wyo.
 (49a)
 Nelson, Olof, Constr. Co., Logan, Utah (43a)
 Nelson, Peter, & Son, Inc., La Crosse, Wis.
 (48b)
 Nelson, W. F., Co., San Diego, Calif. (4c)
 Nesmith, Robt. E., Inc., Houston, Texas
 (42d)
 Ness Constr. Co., Seattle, Wash. (45b)
 Nesto Constr. Co., Newark, N. J. (29a)
 Netherton Co., Shreveport, La. (17e)
 Neumann, Arthur H., & Bros., Inc., Des
 Moines, Iowa (14a) (14b)
 Nevada Co., The, Las Vegas, Nev. (27b)
 Nevada Engr. & Constr. Co., Reno, Nev.
 (27a)
 New Jersey Asphalt & Paving Co., Jersey
 City, N. J. (29a)
 New London Materials & Constr. Co., Will-
 mar, Minn. (22a)
 New State Elec. Co., Phoenix, Ariz. (2a)
 Newbanks, Merrill W., Co., Atlanta, Ga.
 (10a)
 Newbery Elec. Corp., Los Angeles, Calif.
 (4d)
 Newbery Elec. Corp. of Arizona, Phoenix,
 Ariz. (2a)
 Newburn, L. L., Seattle, Wash. (46a)
 Newkirk, A. D., & Son, Jacksonville, Fla.
 (9a)
 Newland Constr. Co., Everett, Wash. (45b)
 Newman, Stanley W., Co., Inc., Mobile, Ala.
 (1a)
 Newport Constr. Co., Portland, Oreg. (36a)
 Newsome, Douglas E., Columbus, Ga. (10a)
 Newton Constr. Co., Odessa, Texas (42p)
 Newton, Harry, Inc., Graham, Texas (42f)
 Nicholas, K. B., Ontario, Calif. (4d)
 Nichols Constr. Co., Geneva, Nebr. (26b)
 Nichols, Harvey A., Los Angeles, Calif. (4d)
 Nicholson Co., Inc., The, New York City &
 Butte, Mont. (21a) (31c) (25b)
 Nicholson, D. W., Corp., San Leandro, Calif.
 (4a)
 Nicholson, H. B., Pasadena, Calif. (4d)
 Nicholson, V. L., Co., Knoxville, Tenn. (41b)
 Nicholson, W. J., Santa Clara, Calif. (4a)
 Nicol, Thos., & Co., Farmingdale, N. J. (29a)
 Nielsen Constr. Co., San Diego, Calif. (4c)
 Nielsen, N. R., & Son, Denver, Colo. (5a)
 Nielsen, S. N., Co., Chicago, Ill. (12a)
 Nielsen, Wilbur, Co., Blencoe, Iowa (14a)
 Nilson-Smith Constr. Co., Great Falls, Mont.
 (25a)
 Noble, R. J., Co., Orange, Calif. (4d)
 Nodland-Alberg Co., Alexandria, Minn. (22a)
 Noel, Harry, Spencer, Iowa (14a)
 Noel, W. H., Co., Jamestown, N. Dak. (33a)
 (40a)
 Nolan, A. T., Co., Minneapolis, Minn. (25a)
 Nolan, E. C., Co., Centerline, Mich. (21c)
 Noland Constr. Co., Dodge City, Kans. (15a)
 Nolte, Geo. V., & Co., Bellingham, Wash.
 (46a)
 Nomellini Constr. Co., Stockton, Calif. (4b)
 Nonnemaker-Clayton Constr. Co., Atlanta,
 Ga. (10a)
 Noonan, R. S., Inc., York, Pa. (37a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

Norfolk Bridge & Constr. Co., Norfolk, Nebr. (26b)
 Norlie Constr. Co., Chico, Calif. (4a)
 Normac, Inc., Huntington Park, Calif. & El Paso, Texas (4b) (4d) (42b)
 Norris, Guy J., Seattle, Wash. (36a) (46a)
 North Central Constr. Co., Hampton, Iowa (14a)
 North-Moller Co., Jackson, Mich. (21b)
 North Seattle Constr. Co., Seattle, Wash. (46a)
 North State Constr. Co., Inc., Rocky Mount, N. C. (32a)
 Northern Constr. Co., Grand Forks, N. Dak. (33a)
 Northern Improvement Co., Fargo, N. Dak. (33a) (40a)
 Northwest Constr. Co., Seattle, Wash. (46a)
 Northwest Precote, Inc., Seattle, Wash. (46a)
 Northwestern Constr. Co., Minneapolis, Minn. (22a)
 Northwestern Engr. Co., Rapid City, S. Dak. & Denver, Colo. (5b) (25a) (26b) (33a) (40a) (49a)
 Nottingham, M. C., Co., Temple City, Calif. (4d)
 Novelty, O & O Co., Inc., Reno, Nev. (27a)
 Nunez Constr. Co., Inc., Texas City, Texas (42d)
 Nunn, Paul H., Oklahoma City, Okla. (42j)
 Nutter Constr. Co., Wilmington, Del. (7a)
 Nygren, David, Seattle, Wash. (46a)



Oak Constr. Co., Royal Oak, Mich. (21c)
 Oates, C. B., Abilene, Texas (42p)
 Oberg Bros. Constr. Co., Inglewood, Calif. (4d)
 Oberg, Lars, Los Angeles, Calif. (4d)
 Oberg, Steve R., Constr. Co., Sioux Falls, S. Dak. (40a)
 O'Brien Constr. Co., Great Falls, Mont. (25a)
 O'Brien, J. M., & Co., Memphis, Tenn. (41c)
 O'Brien, W. F., St. Paul, Kans. (15b)
 O'Bryan, Howard Z., Brattleboro, Vt. (28a)
 O'Connell & Sweeney, Inc., Cincinnati, Ohio (34b)
 O'Connell's, Daniel, Sons, Inc., Holyoke, Mass. (L)
 O'Connor Bros., Red Bluff, Calif. (4b)
 O'Connor Constr. Co., Springfield, Ill. (12c)
 O'Connor Constr. Co., Fromberg, Mont. (25a)
 O'Connor Constr. Co., Inc., Kalispell, Mont. (25a)
 O'Connor, J. C., & Sons, Inc., Fort Wayne, Ind. (13a)
 O'Connor, J. D., Constr. Co., Inc., San Rafael, Calif. (4b)
 O'Connor Oakes Co., Gretna, La. (17a)
 Odegaard Constr. Co., Everett, Wash. (46b)
 O'Dell & Riney Constr. Co., Kirkwood, Mo. (24b)
 Odman, Arthur, Fair Oaks, Calif. (4a)
 Odom, J. M., Austin, Texas (42k)
 Oefflein, Walter W., Inc., Milwaukee, Wis. (48a)
 Ofeco Constr. Co., Inc., Long Beach, Calif. (4d)
 O'Hair, W. H., Co., Colusa, Calif. (4b)
 O'Herron, M., Co., Pittsburgh, Pa. (37c)

Ohio Road Improvement Co., Columbus, Ohio (34d)
 Okes Constr. Co., St. Paul, Minn. (22a)
 Oklahoma Contr. Co., Dallas, Texas (42m)
 Oklahoma Paving Co., Oklahoma City, Okla. (35b)
 Okland Constr. Co., Salt Lake City, Utah (43a)
 Oldt, F. S., Co., Dallas, Texas (42f) (42j)
 Olerich, Walter F., Los Angeles, Calif. (4d)
 Olesen, Jens, & Sons Constr. Co., Waterloo, Iowa (14b)
 Olinger Constr. Co., Huntingburg, Ind. (13a)
 Olmstead, A. C., Janesville, Wis. (48b)
 Olney, H. B., Inc., East Chicago, Ind. (13b)
 O'Loughlin & Hansen, Rochester, Minn. (22a)
 Olsen, Walter L., Santa Rosa, Calif. (4a)
 Olson, A., Constr. Co., Waterloo, Iowa (14a)
 Olson & Appleby, New Bedford, Mass. (20b)
 Olson Constr. Co., Lincoln, Nebr.; Salt Lake City, Utah & Denver, Colo. (5a) (26a) (43a)
 Olson, F., Los Angeles, Calif. (4d)
 Olson & Hart, Denver, Colo. (5a)
 Olson, Jack C., Lorenzo, Idaho (11a)
 Olson, Russell, Constr. Co., Pendleton, Ore. (36a)
 Olson, Sherman, Inc., Chicago, Ill. (12a)
 Olympian Dredging Company, San Francisco, Calif. (4b)
 Oman Construction Company, Nashville, Tenn. (N)
 Oneal, C. E., Co., Inc., Ellensburg, Wash. (46c)
 O'Neil, C. R., Mitchell, Ore. (36a)
 O'Neil Constr. Co., The, Havre, Mont. (25a) (25b)
 O'Neil, W. E., Constr. Co., Chicago, Ill. (12a)
 Orders, W. R., St. Albans, W. Va. (47a)
 Oregon Asphaltic Paving Co., Portland, Ore. (36a)
 Orheim, I. E., Minot, N. Dak. (33a)
 O'Rourke Constr. Co., Houston & Dallas, Texas (42a) (42d)
 Orr, J. C., & Son, Altoona, Pa. (37a)
 Orr, John B., Inc., Miami, Fla. (9b)
 Orr & Orr Constr. Co., Phoenix, Ariz. (2a)
 Orshek, Francis R., Co., Fremont, Nebr. (26b)
 Ortman & Reitze, Meadville, Pa. (37a)
 Osage Constr. Co., Oklahoma City, Okla. (42j)
 Osberg Constr. Co., Seattle, Wash. (46a)
 Osborn Co., Pasadena, Calif. (4d)
 Osceola Constr. Co., Pensacola, Fla. (9d)
 Osterling Constr. Co., Inc., Cherokee, Iowa (14b)
 Ostermann, Gus, & Sons, Ocheyedan, Iowa (14a)
 Ostrom Constr. Co., Inc., Indianapolis, Ind. (13b)
 Ostruske-Murphy, Inc., Tacoma, Wash. (46d)
 Oswald Bros., Los Angeles, Calif. (4d)
 Ottaviano, A. E., Inc., Croton-on-Hudson, N. Y. (31d)
 Otto, C. A., Marysville, Calif. (4a)
 Outdoor Display Co., Lewistown, Pa. (37a)
 Overaa, C., & Co., Inc., Richmond, Calif. (4a)
 Overland Sand & Gravel Co., Stromsburg, Nebr. (26b)
 Owen-Ames-Kimball Co., Grand Rapids, Mich. (21b)

Owen Constr. Co., Inc., Greensboro, N. C. (32a)
 Owens, F. W., Co., Louisville, Ky. (16b)
 Owens, J. B., Tampa, Fla. (9c)
 Owens, J. Sam, Constr. Co., Longview, Texas (42n)
 Owens, T. Calvin, Inc., Washington, D. C. (8a)
 Owl Truck & Constr. Co., Compton, Calif. (4d)

P

P & H Constr. Co., Inc., Evansville, Ind. (13c)
 P. & S. Constr. Co., Macon, Mo. (24b)
 P. & W. Constr. Co., Inc., Atlanta, Ga. (10a)
 Pace-Spence Co., Austin, Texas (42f)
 Pacific Bridge Co., San Francisco, Calif. (4b)
 Pacific Coast Bldrs., San Francisco, Calif. (4a)
 Pacific Co., The, Berkeley, Calif. (4a)
 Pacific Constr. Co., Seattle, Wash. (46a)
 Pacific Constr. Co., Vancouver, Wash. (50a)
 Pacific Construction Co., Ltd., Honolulu, T. H. (L)
 Pacific Constr. Corp., Newport Beach, Calif. (4d)
 Pacific Crane & Rigging Co., Los Angeles, Calif. (4d)
 Pacific Pavements Co., Ltd., San Francisco, Calif. (4b)
 Pacific Pipeline Constr. Co., Montebello, Calif. (2a) (4d)
 Pacific Rock & Gravel Co., Arcadia, Calif. (4c)
 Pacific Sand & Gravel Co., Centralia, Wash. (46d)
 Packtor, Edw., Co., Wethersfield, Conn. (6a)
 Paddock Engr. Co. of Texas, Dallas, Texas (42j)
 Padgett, John W., & Sons, Fort Worth, Texas (42c)
 Page Constr. Co., Boston, Mass. (20b)
 Page Corp. & T. M. Page, Monrovia, Calif. (4d)
 Page, Holland, Austin, Texas (42f)
 Page, T. M. Corp., Monrovia, Calif. (4b)
 Pagenhart, C. C., Rochester, Minn. (22a)
 Paine-Gallucci, Inc., Tacoma, Wash. (46d)
 Pallesen Constr. Co., Oklahoma City, Okla. (35b)
 Palmberg, H. G., Astoria, Ore. (36a)
 Palmer-Smith Co., Detroit, Mich. (21a)
 Palumbo, D., Sons, Pittsburgh, Pa. (37c)
 Panelcrete Engr. Co., Los Angeles, Calif. (2a)
 Pangia Constr. Co., Atco, N. J. (29a)
 Panhandle Constr. Co., Lubbock, Texas (42f) (42j)
 Papin, J. C., Ketchum, Idaho (36a)
 Pappin Constr. Co., Great Falls, Mont. (25b)
 Parda, T. J., Pensacola, Fla. (9d)
 Pardue Constr. Co., Commerce, Ga. (10a)
 Parham-Darr Constr. Co., High Point, N. C. (32a)
 Parish Bros., Benicia, Calif. (4b)
 Park, Alden B., Clayton, Mo. (24c)
 Park Concrete Co., Palmyra, N. J. (29a)
 Park Constr. Co., Minneapolis, Minn. (22a)
 Park Constr. Co., Inc., Boston, Mass. (20b)
 Park, Paul, Co., Storm Lake, Iowa (14b)
 Park-Ward Co., Oklahoma City, Okla. (35b)

A.G.C. DIRECTORY

- Parker Constr. Co., Harlingen, Texas (42o)
 Parker & Fuhrman Co., Portland, Oreg. (36a)
 Parker, H. Earl, Inc., Marysville, Calif. (4b)
 Parker-Johnson Co., Portland, Oreg. (36b)
 Parker, O. E., & Co., Inc., Covington, Va. (45a)
 Parker-Schram Co., Portland, Oreg. (36a)
 Parker, Steffens & Pearce, San Francisco, Calif. (4a)
 Parker, W. J., Constr. Co., Omaha, Nebr. (40a)
 Parkhill Constr. Co., Inc., Washington, D. C. (8a)
 Parkhill-Wade, Los Angeles, Calif. (4d)
 Parks, T. U., Co., Chattanooga, Tenn. (41a)
 Parlor City Constr. Co., Endicott, N. Y. (31d)
 Paroline, John B., Morgan Hill, Calif. (4b)
 Parrott, B. F., & Co., Inc., Roanoke, Va. (45a) (47a)
 Parson & Fife Constr. Co., Brigham City, Utah (43a)
 Parsons Constr. Co., Omaha, Nebr. (26a)
 Parsons, Ralph M., Co., The, Los Angeles, Calif. (4d)
 Paschall-Sanders Constr. Co., Fort Worth, Texas (42c)
 Pasco Constr. Co., Sioux Falls, S. Dak. (40a)
 Pasquale Constr. Co., Endicott, N. Y. (31d)
 Pate, J. F., Constr. Co., Mobile, Ala. (1a)
 Paterson Constr. Co., Inc., New Haven, Conn. (6a)
 Patricelli, John, Seattle, Wash. (46a)
 Patrick, S. V., Constr. Co., Albuquerque, N. Mex. (30b)
 Patrick, W. W., Daytona Beach, Fla. (9f)
 Patterson Constr. Co., Monongahela, Pa. (37c)
 Patterson, Dean, Constr. Co., Burlington, N. C. (32a)
 Patterson, Geo. R., Stockton, Calif. (4b)
 Patterson, W. H., & Co., Baton Rouge, La. (17e)
 Patti-MacDonald Constr. Co., St. Louis, Mo. (50a)
 Patti, S., Constr. Co., Inc., Kansas City, Mo. (24a)
 Patton, R. L., Constr. Co., Keokuk, Iowa (14b)
 Patton-Tully Transportation Co., Memphis, Tenn. (23a)
 Paugh & Brown, Inc., Cleveland, Ohio (34c)
 Paul, Ed., Birmingham, Ala. (1a)
 Paul, G. A., Birmingham, Ala. (1a)
 Paulsen Constr. Co., Salt Lake City, Utah (43a)
 Paulson, O. F., Constr. Co., Cedar Rapids, Iowa (14b)
 Paulus, Robt., Constr. Co., St. Louis, Mo. (24c)
 Pavement Planing Co., Los Angeles, Calif. (4d)
 Payne Constr. Co., Inc., San Francisco, Calif. (4a)
 Payne, Dale, Phoenix, Ariz. (2a)
 Payne & Dolan, Inc., Chicago, Ill. (24b)
 Payne & Dolan of Wisconsin, Inc., Milwaukee, Wis. (21c)
 Payne, Frank A., & Son, Berkeley, Calif. (4a)
 Payne, G. J., Co., Inc., Los Angeles, Calif. (4d)
 Payne & Harris, Chattanooga, Tenn. (41a)
 Pearce, Frank S., Co., Rockford, Ill. (12b)
 Pearce, T. H., & Co., Columbus, Ga. (10a)
 Pearson Constr. Co., Inc., Benton Harbor, Mich. (21b)
 Pecel, B., & Sons, North Hollywood, Calif. (4d)
 Peck, C. L., Los Angeles, Calif. (4d)
 Peck & Udell Constr. Co., The, Cleveland, Ohio (34c)
 Peck, W. D., & Co., Inc., Houston, Texas (42d)
 Peckham Road Corp., White Plains, N. Y. (31d)
 Peden Constr. Co., Inc., Greenville, S. C. (32a)
 Pedersen Bros., Inc., Montevideo, Minn. (22a)
 Pederson, P. O., Inc., Sioux Falls, S. Dak. (22a)
 Peira, U., & Son, San Francisco, Calif. (4b)
 Peirce Constr. Co., The, Toledo, Ohio (34d)
 Pekar, R. J., Austin, Texas (42k)
 Pellicione, D., & Co., Weirton, W. Va. (47a)
 Pelphrey & Basham, Inc., Fort Worth, Texas (42j)
 Pelphrey, L. W., Co., Gladewater, Texas (42f)
 Pelphrey, W. O., Fort Worth, Texas (42f)
 Pemberton Bldrs., Inc., Plant City, Fla. (9c)
 Penker, Constr. Co., The, Cincinnati, Ohio (34b)
 Pennell & Haigler Constr. Co., Lenoir, N. C. (32a)
 Pennington & Winter Constr. Co., Oklahoma City, Okla. (42j)
 Penny, M. N., Lawrence, Kans. (15b)
 Pentz, Inc., Omaha, Nebr. (26b)
 Penzel Constr. Co., Jackson, Mo. (24b)
 Perelli Constr. Co., Inc., Trenton, N. J. (29a)
 Perini, B., & Sons, Inc., Pittsburgh, Pa. (37c)
 Perkins Bros., Portland, Oreg. (36a)
 Perkinson, Henry L., Constr. Co., St. Louis, Mo. (24b) (24c)
 Perlmutter, Abe, Constr. Co., Inc., Denver, Colo. (5a)
 Permanent Bldrs., Inc., Clarksburg, W. Va. (47a)
 Permanent Constr. Co., Chicago, Ill. (12a)
 Perrillat-Rickey Constr. Co., Inc., New Orleans, La. (17a)
 Perry, Arthur F., Co., Jacksonville, Fla. (9a)
 Perry, B. F., Akron, Ohio (34a)
 Perry Constr. Co., Chicago, Ill. (12a)
 Perry, J. W., San Antonio, Texas (42f)
 Persun Constr. Co., Huntington, W. Va. (47a)
 Perusini Constr. Co., Homewood, Ala. (1a)
 Pesa, Felix, & Sons Co., The, Youngstown, Ohio (34f)
 Peters, A. J., & Son, San Jose, Calif. (4b)
 Peters Constr. Co., Milwaukee, Wis. (48a)
 Peters, Paul C., Co., Toledo, Ohio (34b)
 Petersen, A. V., Co., Portland, Oreg. (36b)
 Petersen, Lawrence, Constr. Co., St. Paul, Minn. (22a)
 Petersen, N. A., Constr. Co., Austin, Minn. (22a)
 Petersen, Wm., Seattle, Wash. (46b)
 Peterson Bros., Laurens, Iowa (14a)
 Peterson, C. A., & Sons, Rock Rapids, Iowa (14b)
 Peterson, C. Norman, Constr., Berkeley, Calif. (4a)
 Peterson, Carl H., Co., Minneapolis, Minn. (22a)
 Peterson Constr. Co., Minneapolis, Minn. (22a)
 Peterson Constr. Co., Los Altos, Calif. (4a)
 Peterson Constr. Co., Dallas, Texas (42a)
 Peterson, Dale R., & Co., Inc., Seattle, Wash. (46b)
 Peterson, E. H., & Son, Richmond, Calif. (4b)
 Peterson, Etlin E., Casper, Wyo. (49a)
 Peterson, Garbi & Joseph, Inc., North Little Rock, Ark. (3a)
 Peterson, Geo. W., Los Angeles, Calif. (4d)
 Peterson, H. M., & Co., Portland, Oreg. (36a)
 Petrillo, Edw. J., Inc., Red Bank, N. J. (29a)
 Petry, N. G., Constr. Co., Denver, Colo. (5a)
 Pettyjohn, F. S., Alamosa, Colo. (5b)
 Pettyjohn, John P., & Co., Lynchburg, Va. (45a)
 Pew, Arthur, Constr. Co., Atlanta, Ga. (10a)
 Pew Constr. Co., Missoula, Mont. (25b)
 Peyronnin Constr. Co., Evansville, Ind. (13c)
 Phelps-Drake Co., Inc., Minneapolis, Minn. (22a)
 Phelps, Judson H., San Antonio, Texas (42e)
 Phelps-Wagner Bldrs., Battle Creek, Mich. (21b)
 Phend & Brown, Milford, Ind. (13a)
 Phifer, Jesse P., Constr. Co., Rockingham, N. C. (32a)
 Phillips, Alton V., Seattle, Wash. (46a)
 Phillips, C. S., Petaluma, Calif. (4a)
 Phillips Constr. Co., Lancaster, S. C. (32a)
 Phillips, John W., Corpus Christi, Texas (42i)
 Phoenix Constr. Co., Inc., Bakersfield, Calif. (4d)
 Phoenix-Tempe Stone Co., Phoenix, Ariz. (2a)
 Piazza, Leo F., Paving Co., San Jose, Calif. (4b)
 Pickett & Nelson, Idaho Falls, Idaho (11a)
 Pickitt, Harry, Allegan, Mich. (21c)
 Pickler, M. C., Constr. Co., Inc., Aberdeen, N. C. (32a)
 Piedmont Constr. Co., Inc., Winston-Salem, N. C. (32a)
 Piehl, Myron T., Williams Bay, Wis. (48b)
 Pieler Constr. Co., Seattle, Wash. (46a)
 Pierson, Constr. Co., Baton Rouge, La. (17e)
 Pierson Constr. Co., Saginaw, Mich. (21c)
 Pike & Hill, Carey Bros. & Bailey, San Rafael, Calif. (4a)
 Pine Bluff Sand & Gravel Co., Pine Bluff, Ark. (23a)
 Pine Flat Contrs., Sanger, Calif. (4b)
 Pinner, Arthur, Jr., Los Angeles, Calif. (2a)
 Pinnix, R. H., Gastonia, N. C. (32a)
 Piombo Constr. Co., San Francisco, Calif. (4b)
 Pioneer Constr. Co., Chattanooga, Tenn. (41a)
 Pioneer Constrs., Inc., Tucson, Ariz. (2a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Pioneer Contr. Co., Inc., Memphis, Tenn. (23a)
 Pipe Line Constr. & Drilling Co., Camp Hill, Pa. (42m)
 Pipe Line Constrs., Bakersfield, Calif. (4d)
 Piper Bros., Cambridge, Mass. (20b)
 Piracci Constr. Co., Inc., Baltimore, Md. (19a)
 Pittman Constr. Co., New Orleans, La. (17d)
 Pittsburgh-Des Moines Steel Co., Des Moines, Iowa & Pittsburgh, Pa. (14a) (37c)
 Plank, J. C., Houston, Texas (42d)
 Plate Constr. Co., Inc., Parkersburg, W. Va. (47a)
 Plath, Eric E., Spokane, Wash. (46c)
 Platt Contr. Co., Inc., East Cambridge, Mass. (20b)
 Platte Valley Constr. Co., Grand Island, Nebr. (26b)
 Player Realty & Constr. Co., Fayetteville, N. C. (32a)
 Plewe Constr. Co., Salt Lake City, Utah (43a)
 Plozai, Jos., Inc., Detroit, Mich. (21c)
 Plummer, J. Lee, Inc., Sewickley, Pa. (37c)
 Plunkett, North H., & Co., Long Beach, Calif. (4d)
 Plymate, Clay, Co., Inc., Oklahoma City, Okla. (35b)
 Poe, T. W., & Sons, Durham, N. C. (32a)
 Pohl, Jos. L., Nevada, Mo. (24b)
 Pohlman & Wilbanks, Monroe, La. (17e)
 Poirier & McLane Corp., New York, N. Y. (29a)
 Poley-Abrams Corp., Brookline Village, Mass. (20b)
 Pollard, M. E., Bossier City, La. (17e)
 Pollock, Geo., Co., Sacramento, Calif. (4b) (4d)
 Pomeroy, J. H., & Co., Inc., San Francisco, Calif. (4b) (50a)
 Ponder, Dan R., Inc., El Paso, Texas (42b)
 Ponsford Bros., El Paso, Texas (42b)
 Pope, S. A., Rock Hill, S. C. (32a)
 Porath, Julius, & Son Co., Detroit, Mich. (21c)
 Poriss, Benjamin F., Hartford, Conn. (6a)
 Poriss, S. C., Constr. Co., The, Hartford, Conn. (6a)
 Port City Constr. Co., Inc., Lake Charles, La. (17c)
 Port Constr. Co., Port Angeles, Wash. (46a)
 Porter-DeWitt Constr. Co., Poplar Bluff, Mo. (23a) (24b)
 Porter, Henry D., & Co., Lynchburg, Va. (45a)
 Porter, Wm. H., Co., Inc., Watertown, Mass. (20b)
 Porterfield-Binger Constr. Co., Youngstown, Ohio (37c)
 Portland Tug & Barge Co., Portland, Ore. (36a)
 Posthumus, Gerritt, Wayne, Mich. (21c)
 Poston Sand & Gravel, Lawton, Okla. (35b)
 Potashnick, R. B., Cape Girardeau, Mo. (12c) (23a) (24b) (42m)
 Potter-DeWitt Corp., Pavilion, N. Y., (31d)
 Potter-Horn, Inc., Boston, Mass. (20b)
 Potter, John W., Fort Worth, Texas (42c)
 Potter-Shackelford Constr. Co., Greenville, S. C. (32a)
 Potts & Callahan Constr. Co., Baltimore, Md. (19b)
 Pound, Murphey, Constr. Co., Columbus, Ga. (10a)
 Powell Bros., Inc., Ft. Lauderdale, Fla. (9b)
 Powell, E. C., Great Falls, Mont. (25a)
 Powell, Jas. F., Jr., Raleigh, N. C. (32a)
 Powell, L. D., Constr. Co., Memphis, Tenn. (41c)
 Power, Chas. A., Spokane, Wash. (46c)
 Powers, T. F., Constr. Co., Fargo, N. Dak. (33a)
 Powers-Thompson Constr. Co., Joliet, Ill. (12c) (13a)
 Pozzo Constr. Co., Ltd., Los Angeles, Calif. (4d)
 Prassel, Victor, San Antonio, Texas (42c)
 Prati & Prati, El Paso, Texas (42b)
 Price, Vido S., & Glenn Graham, Los Angeles, Calif. (4d)
 Precour Constr. Co., Oshkosh, Wis. (48b)
 Prepakt Concrete Company, The, Cleveland, Ohio & Seattle, Wash. (N) (46a)
 Prescott Constr. Co., Inc., Washington, D. C. (8a)
 Price, Fred H., Lansing, Mich. (21c)
 Price, H. C., Co., Bartlesville, Okla. (42m)
 Price, Lyle, Flagstaff, Ariz. (2a)
 Price & Price, Inc., Lafayette, Ind. (13b)
 Price, R. M., Co., Altadena, Calif. (4d)
 Price, W. T., Dredg. Corp., Miami, Fla. (9b)
 Prichard, Thos. J., Jr., Fresno, Calif. (4a)
 Priestor Constr. Co., Davenport, Iowa (14b)
 Priestor, L. B., & Son, Meridian, Miss. (23d)
 Princeville Stone Co., Princeville, Ill. (12c)
 Procon, Inc., El Segundo, Calif. & Saint Paul Park, Minn. (4d) (22a)
 Profenno, Camillo, Co., Portland, Me. (18a)
 Proksch Constr. Co., Iron River, Mich. (21c)
 Propst, Ben B., Concord, N. C. (32a)
 Propst Constr. Co., Inc., Concord, N. C. (32a)
 Provo Bros., Inc., Syracuse, N. Y. (31d)
 Paaty & Fuhrman, Inc., New York City (31c)
 Public Constr. Co., Denton, Texas (42f)
 Puckett, Taylor E., Holly Hill, Fla. (9f)
 Puget Sound Bridge & Dredg. Co., Seattle, Wash. (46a) (46b)
 Pugh Constr. Corp., San Pedro, Calif. (44)
 Pugh, John T., Rochester, Ind. (13b)
 Pullen & Owens, Nashville, Tenn. (32a)
 Purdy Constr. Co., The, Mansfield, Ohio (34d)
 Purington, O. D., Co., Inc., Providence, R. I. (38a)
 Purtell, Harold, Constr. Co., St. Paul, Minn. (22a)
 Purizer & Dutton, Norton, Kans. (15b)
 Putney, John H., Constr. Co., Oklahoma City, Okla. (35a)
 Putter, Frank A., Tucson, Ariz. (2a)
 Pyle, J. E., Little Rock, Ark. (3a)
 Pyramid Constr. Co., Wilmington, N. C. (32a)
 Quinn Constr. Co., Kansas City, Mo. (24b)
 Quinn-Robbins Co., Inc., Boise, Idaho (11a)
 Quisile Constr. Co., Fort Worth, Texas (42c)
 R & M Constr. Co., Central Point, Ore. (36a)
 R. & R. Constr. Co., Alton, Ill. (12d)
 Rabalais, E. E., & Son, Bunkie, La. (17f)
 Radich & Fergusson, Inc., Burbank, Calif. (4d)
 Radkovich, Wm., Co., Los Angeles, Calif. (4d)
 Rados, Steve P., Los Angeles, Calif. (4d)
 Radtke, Wm., & Son, Gilroy, Calif. (4b)
 Raff & Dexter, Lansing, Mich. (21c)
 Rafferty, John E., Jr., Inc., Philadelphia, Pa. (37d)
 Ragner-Benson, Inc., Pittsburgh, Pa. (37b)
 Ragner Bros., Pittsburgh, Pa. (37c)
 Rahn, John F., Inc., East Chicago, Ind. (13b)
 Railing, W. C., Woodland, Calif. (4b)
 Raines, J. A., Muskogee, Okla. (35b)
 Raisch, A. G., Co., San Rafael, Calif. (4b)
 Raisch, A. J., Paving Co., San Jose, Calif. (4b)
 Ralph & Horwitz, Portland, Ore. (36b)
 Rambo Constr. Co., Fort Worth, Texas (42c)
 Ramey Constr. Co., Amarillo, Texas (42g)
 Ramliak, M., Los Angeles, Calif. (4d)
 Ramsey, A. A., & Son, Shelby, N. C. (32a)
 Ramsey Bros. Bldrs., Reno, Nev. (27a)
 Ramsey Constr. Co., Corvallis, Ore. (36a)
 Ramsey, H. F., Co., Inc., Asheville, N. C. (32a)
 Rand Constr. Co., Bakersfield, Calif. (4d)
 Rand Constr. Co., Rapid City, S. Dak. (40a)
 Randall Bldg. Co., Amarillo, Texas (42g)
 Randall, W. R., & Son, Rock Hill, S. C. (32a)
 Rankin, D. W., Inc., Cleveland, Ohio (34c)
 Ranon & Jimenez, Tampa, Fla. (9c)
 Ransdell Constr. Co., Dallas, Texas (42a) (42j)
 Ransome Co., Emeryville, Calif. (4b)
 Rapp, Robt. M., Co., Santa Rosa, Calif. (4b)
 Rapp, Wm. D., Santa Rosa, Calif. (4b)
 Rappoli, Edmund J., Co., Inc., Cambridge, Mass. (20b)
 Ratcliff, Ruby V., Constr. Co., Rock Hill, S. C. (32a)
 Ratcliff Bros. Constr. Co., Liberty, Texas (42h)
 Ratcliff & Cornelius Constr. Co., Fort Worth, Texas (42c)
 Ratcliff, J. E., Alexandria, La. (17f)
 Rau Constr. Co., Kansas City, Mo. (21a)
 Rawlings, Wm. S., Co., Kansas City, Mo. (24a)
 Raymond, Ace S., Logan, Utah (43a)
 Raymond Concrete Pile Co., New York, N. Y.; Los Angeles, Oakland, & San Francisco, Calif.; Pittsburgh, & Philadelphia, Pa.; Washington, D. C.; Atlanta, Ga.; Baltimore, Md.; Boston, Mass.; Chicago, Ill.; Portland, Ore.; Detroit, Mich.; Kansas City & St. Louis, Mo.; Syracuse, N. Y.; Houston, Texas; Miami, Fla.; New Orleans, La.; Cleveland, Ohio & Salt Lake City, Utah (N) (10a) (36a)
 Quad City Constr. Co., Inc., Rock Island, Ill. (12c) (14a)
 Quality Constr. Co., Asheville, N. C. (32a)
 Quapaw Co., The, Picher, Okla. (35b)
 Quealy Constr. Co., Ft. Dodge, Iowa (14a)
 Quillian's Concrete, Holly Hill, Fla. (9f)
 Quinlan Constr. Co., Kansas City, Mo. (21a)
 Quinn & Conant, Los Angeles, Calif. (4d)

A.G.C. DIRECTORY

- Rea Constr. Co., Charlotte, N. C. (32a)
 Rea, Wayne L., Corpus Christi, Texas (42j)
 Read, A. H., Co., Cheyenne, Wyo. (26b) (49a)
 Read Constr. Co., Cheyenne, Wyo. (5b) (49a)
 Read, Fred W., Twin Falls, Idaho (11a)
 Ready-Mix Concrete Co., Reno, Nev. (27a)
 Ready Mix Concrete Co., Pascagoula, Miss. (23c)
 Reagan, Wm. M., & Sons, Inc., Columbia, S. C. (32a)
 Reardon, J. J., Constr. Co., Enid, Okla. (35a)
 Reason, Edw., Pittsburgh, Pa. (37c)
 Redding, Harold L., & Assos., Lawton, Okla. (35a)
 Reddington, J. D., Indianapolis, Ind. (13b)
 Red Eagle Corp., The, Columbus, Ohio (34d)
 Red River Constr. Co., Shreveport, La. (42j)
 Reece Constr. Co., Scandia, Kans. (15b)
 Reed & Abec, Inc., Asheville, N. C. (32a)
 Reed Constr. Co., Inc., Mishawaka, Ind. (13a)
 Reed Constr. Corp., Miami Beach, Fla. (9b)
 Reed, Duffy, Constr. Co., Twin Falls, Idaho (11a)
 Reed, M. T., Constr. Co., Jackson, Miss. (23b)
 Reed & Martin, Inc., Fairbanks, Alaska (50a)
 Reed & Stone, Essex Junction, Vt. (28a)
 Reeder, E. H., Constr. Co., Dallas, Texas (42j)
 Reese, Herbert, Greenbush, Minn. (22a)
 Reese, Morrison W., San Jose, Calif. (4a)
 Reeves, F. M., & Sons, Austin, Texas (42f)
 Reeves, J. R., Sacramento, Calif. (4b)
 Regan, C. T., Constr. Co., The, Cleveland, Ohio (34c)
 Regen, J. B., Nashville, Tenn. (41d)
 Regenhardt Constr. Co., Cape Girardeau, Mo. (12c)
 Reich, Hugh D., Austin, Texas (42k)
 Reid, A. R., Co., San Francisco, Calif. (4b)
 Reid Constr. Co., Inc., Woodbridge, N. J. (20a)
 Reid & Hope, Suffolk, Va. (45a)
 Reid, R. J., Constr. Co., Birmingham, Ala. (23a)
 Reiff, Daniel L., Norristown, Pa. (37d)
 Reilly, Michael H., New Orleans, La. (17a)
 Reimer, C. F., Constr. Co., Inc., Marshalltown, Iowa (14b)
 Reimers & Jolivet, Portland, Ore. (36b)
 Reindollar, I., & Son, Inc., York, Pa. (37a)
 Reinecke, E. W., & Co., Fayetteville, N. C. (32a)
 Reis, A. F., Topeka, Kans. (15b)
 Reisinger, Robt. L., & Co., Milwaukee, Wis. (48a)
 Reliance Truck Co., Phoenix, Ariz. (2a)
 Rendle, Jas. B., Co., Malden, Mass. (20a)
 Rendle, Roy B., & Co., Inc., East Boston, Mass. (20a)
 Reniger Constr. Co., Lansing, Mich. (N) (21b)
 Reno Constr. Co., Overland Park, Kans. (15b) (24b)
 Rentenbach & Wright, Inc., Kingsport, Tenn. (41c)
 Rentler Co., Inc., Grand Island, Nebr. (26b)
 Renz, Geo. C., Gilroy, Calif. (4b)
 Replogle, C. F., Circleville, Ohio (34d)
 Repp & Mundt, Inc., Columbus, Ind. (13b)
 Rexroad, L. W., & Son, Salina, Kans. (15b)
 Rexroth & Rexroth, Bakersfield, Calif. (4d)
 Reynolds Constr. Co., Springville, Utah (43a)
 Reynolds, Roland T., Anaheim, Calif. (4d)
 Reynolds & Walker, Inc., Twin Falls, Idaho (11a)
 Reynolds & Williams, Little Rock, Ark. & Shreveport, La. (3a) (17e)
 Rheiner, A. E., & Co., San Antonio, Texas (42e)
 Rheiner, D. J., Constr. Co., San Antonio, Texas (42e)
 Rheinstein Constr. Co., Inc., New York City (31c)
 Rhoades Constr. Co., Inc., Newton, Kans. (15b)
 Rhoades-Shofner Constr. Co., Inc., Los Angeles, Calif. (4d)
 Rhodes, Jon K., Constr. Co., Fort Worth, Texas (42c)
 Rice Bros., Inc., Marysville, Calif. (4b) (4d)
 Rice, Jas. F., Columbia, S. C. (32a)
 Rice, Jos. N., Inc., New Haven, Conn. (6a)
 Richards, Floyd, Amarillo, Texas (42g)
 Richards, Gene, Inc., Fresno, Calif. (4b)
 Richardson Constr. Co., Birmingham, Ala. (1a)
 Richardson Constr. Co., Fort Worth, Texas (42j)
 Richardson Constr. Co., Inc., Cincinnati, Ohio (34b)
 Richardson & Kendrick, Little Rock, Ark. (3a)
 Richardson, Lou, Miles City, Mont. (25a) (33a) (40a)
 Richter Transfer Co., Cincinnati, Ohio (34b)
 Rickey, Horace B., Inc., Lafayette, La. (17f)
 Ricks, J. E., Constr. Co., Austin, Texas (42i) (42k)
 Rider Constr. Co., Charleroi, Pa. (37c)
 Riedesel Constr. Co., Billings, Mont. (25a) (25b)
 Riegel, A. V., Inc., White Plains, N. Y. (31d)
 Riess, John, New Orleans, La. (17a)
 Rieth-Riley Constr. Co., Goshen, Ind. (13a) (21c)
 Rife, A. J., Constr. Co., Dallas, Texas (42a)
 Riffe, David T., Inc., Pittsburgh, Pa. (37b)
 Riha Constr. Co., San Diego, Calif. (4c)
 Riley, Wm. A., Paving & Constr. Co., Inc., St. Louis, Mo. (24c)
 Rinderknecht, R. W., Co., Cedar Rapids, Iowa (14b)
 Riney, L. W., Constr. Co., Hannibal, Mo. (24b)
 Ringland-Johnson, Inc., Des Moines, Iowa (14b)
 Ringwald, W. H., & Sons Co., The, Chillicothe, Ohio (34d)
 Rinner, George, Constr. Co., Inc., Topeka, Kans. (15a)
 Rippy, E. J., & Sons, New Castle, Colo. (5b)
 Risk Pipe & Constr. Co., Nebraska City, Nebr. (26b)
 Ritchie, A., Co., Walla Walla, Wash. (46c)
 Ritchie Bros. Constr. Co., Wichita, Kans. (15b)
 Ritchie, Walter L., Malden, Mass. (20b)
 Ritter Bros., Harrisburg, Pa. (37a)
 Rives Constr. Co., Birmingham, Ala. (1a)
 Road Constr. Co. of Westfield, Westfield, N. J. (29a)
 Robbins, John A., Co., Inc., Philadelphia, Pa. (37d)
 Robbins & White, Inc., Westbrook, Me. (18a)
 Roberts Constr. Co., Corinth, Miss. (23d)
 Roberts, J. P., Rome, Ga. (10a)
 Roberts, Jack A., Birmingham, Ala. (1a)
 Roberts, Jas. A., Houston, Texas (42d)
 Roberts, John H. C., Reno, Nev. (27a)
 Roberts & Long Constr. Co., Mobile, Ala. (1a)
 Roberts, Lyle, Inc., Coral Gables, Fla. (9b)
 Roberts, R. W., & Co., Dearborn, Mich. (21c)
 Robertson, Alex. Co., Paramount & Walnut Creek, Calif. (4b) (4d)
 Robertson, H. W., Inc., Sacramento, Calif. (4a)
 Robertson, Hay & Wallace, Portland, Ore. (36b)
 Robertson-Henry Co., Huntington, W. Va. (47a)
 Robertson, W. E., Co., Los Angeles, Calif. (4b) (4d)
 Robie Constr. Co., Inc., Manchester, N. H. (28a)
 Robins Engr., Birmingham, Ala. (1a)
 Robinson Bros. Constrs., Inc., Asheville, N. C. (32a)
 Robinson, Howard, Co., Anchorage, Alaska (50a)
 Robinson, Jack, Bend, Ore. (36a)
 Robinson, Robt. M., Owensboro, Ky. (16a)
 Robison Constr. Co., Pittsburgh, Pa. (37b)
 Robson, R. M., Portland, Ore. (36a)
 Rochester Coal-Trucking & Constr. Co., Rochester, Pa. (37c)
 Rocho, Edw. M., Constr. Co., Inc., Freeport, Ill. (12c)
 Rock City Constr. Co., Nashville, Tenn. (41d)
 Rock Hill Asphalt & Constr. Co., Clayton, Mo. (24b)
 Rockford Black Top Constr. Co., Rockford, Ill. (12c)
 Roden Constr. Co., Fort Worth, Texas (42c)
 Rodgers, H. N., & Sons Co., Memphis, Tenn. (23a)
 Roediger Constr., Inc., Cleveland, Ohio (31c)
 Roehl Constr. Co., Knoxville, Tenn. (41b)
 Roehm Bros., Inc., Terre Haute, Ind. (13b)
 Roel Constr. Co., Fargo, N. Dak. (33a)
 Rogers, Chas. J., Inc., Detroit, Mich. (21a) (21c)
 Rogers Constr. Co. & Babler Bros., Portland, Ore. (50a)
 Rogers Constr. Co., Portland, Ore. (36a)
 Rogers-DeVaun, Inc., Wilmington, N. C. (32a)
 Rogers, H. A., & Sons, Lebo, Kans. (15b)
 Rogers, Ira, Topeka, Kans. (15b)
 Rogers, J. P., t/a Rogers Constr. Co., Smithfield, N. C. (32a)
 Rogers, Jos. W., Succasunna, N. J. (29a)
 Rogers & McGrath, Washington, D. C. (8a)
 Rogers, Platt, Inc., Denver, & Pueblo, Colo. (5a) (5b)
 Rohleder, Chas. F., Philadelphia, Pa. (37d)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

Roland Constr. Co., Alexandria, La. (17e)
 Roland Constr. Co., Dallas, Texas (42a)
 Rolandi, F. S., Jr., Inc., San Francisco, Calif. (4b)
 Romano, Ralph, Jr., Portland, Me. (18a)
 Romano, Toney, Co., Seattle, Wash. (46a)
 Romero & Theall, Youngsville, La. (17f)
 Rommel, Geo. H., Co., Louisville, Ky. (16b)
 Romney, G. Maurice, Salt Lake City, Utah (43a)
 Rooney, Frank J., Inc., Miami, Fla. (9b)
 Rorick Constr. Co., Omaha, Nebr. (26a)
 Roscoe, W. P., Co., Billings, Mont. (49a)
 Rose Constr. Co., Abilene, Texas (42p)
 Rose, D. J., & Son, Rocky Mount, N. C. (32a)
 Rose, W. P., Constr. Co., Atlanta, Ga. (10a)
 Rosewall, T. H., Watsonville, Calif. (4a)
 Ross, Jas., Assos., Inc., Concord, N. H. (23a)
 Ross, John N., Charlottesville, Va. (45a)
 Ross Sand Co., Concordia, Kans. (15b)
 Rothschild, Raffin & Weirick, San Francisco, Calif. (4b)
 Rottmayer Constr. Co., Akron, Ohio (34a)
 Rounds, Chas. J., Los Angeles, Calif. (4d)
 Rounds Constr. Co., Rapid City, S. Dak. (40a)
 Rouse, R. N., & Co., Goldsboro, N. C. (32a)
 Rousseau, Oliver M., Co., San Francisco, Calif. (4a) (4b)
 Rowe Constr. Co., Bloomington, Ill. (12c)
 Rowley Constr. Co., Pawtucket, R. I. (38a)
 Rowley, Fred C., & Sons, Inc., Hammond, Ind. (13b)
 Royden, H. L., Phoenix, Ariz. (2a)
 Ruby Constr. Co., Madisonville, Ky. (1)
 Ruby, H. W., Sacramento, Calif. (4b)
 Ruby, M. E., San Marcos, Texas (42f)
 Ruckman-Hansen, Inc., Fort Wayne, Ind. (13a)
 Ruddy, M. J., & Son, Modesto, Calif. (4b)
 Rue Constr. Co., Bismarck, N. Dak. (33a)
 Rue Constr. Co., Fargo, N. Dak. (33a)
 Ruebel, S. A., & Co., Cincinnati, Ohio (34b)
 Ruedy, Eugene, Co., Portland, Oreg. (36a)
 Rueth, Leo, & Sons, Inc., Hammond, Ind. (13b)
 Ruff, John K., Co., Baltimore, Md. (19a)
 Rule, C. F., Constr. Co., Nashville, Tenn. (41d)
 Rumsey Bros. Pipe Line Constr. Co., Wichita, Kans. (42m)
 Rumsey & Co., Seattle, Wash. (46a)
 Rundell, Frank R., Austin, Texas (42k)
 Runels, R. E., Constr. Co., Lowell, Mass. (20b)
 Runquist Co., Savannah, Mo. (24b)
 Rupert Constr. Co., Wilmington, Del. (7a)
 Rupp Bros., Inc., Kittanning, Pa. (37c)
 Ruscon Constr. Co., Charleston, S. C. (32a)
 Rush Constr. Co., Ambloy, Wash. (36a)
 Rushlight Automatic Sprinkler Co., Portland, Oreg. (36a)
 Russell-Gillet Co., Cle Elum, Wash. (46a)
 Russell, T. Edgie, Frederick, Md. (19b)
 Rust Constr. Corp., Evansville, Ind. (13c)
 Rust Engineering Co., The, Pittsburgh, Pa.: Washington, D. C.; New York, N. Y. & Birmingham, Ala. (N)
 Rust, Henry R., Inc., Philadelphia, Pa. (37d)
 Rutherford, Geo. A., Co., The, Cleveland, Ohio (34c)
 Rutland Constr. Co., Decatur, Ga. (10a)
 Ruud Constr. Co., Spokane, Wash. (46c)

Ryan Constr. Corp., Evansville, Ind. (13a) (13c)
 Ryan Contr. Corp., New York City (31c)
 Ryan, J. H., Albuquerque, N. Mex. (30a)
 Ryan, R. R., Constr. Co., Oklahoma City, Okla. (35b)

S

S. A. E. Co., Redwood City, Calif. (4b)
 S & B Constr. Co., Coral Gables, Fla. (9b)
 S & F Constr. Co., Yardley, Wash. (46c)
 S. M. H. Constr. Co., Peoria, Ill. (12c)
 S & Q Constr. Co., San Francisco, Calif. (4b)
 S & W Constr. Co., Memphis, Tenn. (41c)
 Sablain, Ray, Lansing, Mich. (21c)
 Sachs & Kaufman, Detroit, Mich. (21c)
 Sackett, Allen E., Hood River, Oreg. (36a)
 Saigh, N. A., Co., Inc., San Antonio, Texas (42m)
 Saine Co., Orlando, Fla. (9c)
 St. John Co., The, Miami, Fla. (9b)
 St. Joseph Fuel Oil & Mfg. Co., St. Joseph, Mo. (24b)
 St. Louis Steel Erection Co., St. Louis, Mo. (24c)
 Sale, Paul L., Steel Mfg. Co., Inc., Mesa, Ariz. (2a)
 Salem Sand & Gravel Co., Salem, Oreg. (36a)
 Salen, Albert H., Menominee, Mich. (21d)
 Saliba, N. M., Co., Los Angeles, Calif. (4d)
 Salina Constr. & Supply Co., Inc., Syracuse, N. Y. (31d)
 Salley, W. C., Monroe, La. (17g)
 Salmon Bros., Inc., Netcong, N. J. (29a)
 Salmond, Scrimshaw Constr. Co., Arlington, N. J. (1)
 Salvidge, E. J., Constr. Co., Youngstown, Ohio. (34f)
 Sanford, A. C., Inc., Albany, Ga. (10a)
 Sampson Bros. Constr. Co., Lubbock, Texas (42p)
 Samuel, B. H., & Sons, Portland, Oreg. (36a)
 Sanctis Constr., Inc., Pittsburgh, Pa. (37c)
 Sanders Constr. Corp., Portland, Me. (18a)
 Sanders, L. L., Little Rock, Ark. (23a)
 Sanders, Marthame, & Co., Atlanta, Ga. (10a)
 Sanford, N. Ralph, Hoisington, Kans. (15b)
 Sandstrom & Hafner, Duluth, Minn. (22a)
 Sanford Constr. Co., Inc., Sanford, N. C. (32a)
 Sanford, W. H., Corp., Terre Haute, Ind. (13b)
 Sangamo Constr. Co., Springfield, Ill. (12c)
 Sani Constr. Co., Des Moines, Iowa (14a)
 Sankey Bros., Inc., Springfield, Ill. (12c)
 San-Ore Constr. Co., McPherson, Kans. (5b) (15b) (26b)
 Santa Barbara Crane Service, Santa Barbara, Calif. (4d)
 San Xavier Rock & Sand Co., Tucson, Ariz. (2a)
 Sapp, J. Hilbert, Inc., Orlando, Fla. (9c)
 Sargent, B. H., West Branch, Mich. (21c)
 Sargent Constr. Co., Saginaw, Mich. (21c)
 Sargent Excavating Co., Inc., Topeka, Kans. (15b)
 Sargl, G., Beaumont, Texas (42h)
 Sartorio, Peter, San Francisco, Calif. (4a)
 Sather & Sons, Spokane, Wash. (46c)

Sauers Constr. Co., Inc., St. Paul, Minn. (22a)
 Sault, L. H., St. Paul, Minn. (22a)
 Sauter, Godfrey, Philadelphia, Pa. (37d)
 Savage, John L., Carson City, Nev. (27a)
 Savin Constr. Corp., The, East Hartford, Conn. (31d)
 Sawallisch Constr. Co., El Reno, Okla. (35b)
 Sawyer Constr. Co., Boston, Mass. (20b)
 Sawyer Constr. Co., Hampton, Va. (45a)
 Sawyer, Paul, Sand & Gravel Co., Holdrege, Nebr. (26b)
 Saxton, A. H., & Sons, Corvallis, Oreg. (36a)
 Scalzo, Thos., Co., Seattle, Wash. (46a)
 Scandrollo Constr. Co., Rockford, Ill. (12b)
 Scarsella Bros., Seattle, Wash. (46a)
 Schader, A. D., San Francisco, Calif. (4b)
 Schaefer, Henry R., Co., Davenport, Iowa (14b)
 Schell, Fred W., San Francisco, Calif. (4a)
 Schenck, R. E., Co., Indianapolis, Ind. (13b)
 Schenkel, Wm. P., & Sons, Fort Wayne, Ind. (13b)
 Scheperle, Roy A., Constr. Co., Jefferson City, Mo. (24a)
 Scherrer, Dan, Constr. Co., Kansas City, Kans. (15b)
 Scheumann & Johnson, Seattle, Wash. (46a)
 Schiekli, J. U., & Bros., Louisville, Ky. (16b)
 Schildberg Constr. Co., Greenfield, Iowa (14a)
 Schilling, G. E., Engr. & Constr. Co., Inc., Reno, Nev. (27a)
 Schimkat, Art, Constr., Onida, S. Dak. (40a)
 Schirmer-Peterson Co., The, Cleveland, Ohio (34c)
 Schirmer-Schneider Co., The, Cleveland, Ohio (34c)
 Schloss, Wm. L., Asphalt Paving Co., Cleveland, Ohio (34c)
 Schmeling, E. W., & Sons, Inc., Rockford, Ill. (12b)
 Schmidt Constr. Co., Grand Junction, Colo. (5b)
 Schmidt Constr. Co., Winfield, Iowa (14a)
 Schmidt, Leo W., Co., Cleveland, Ohio (34c)
 Schmitt, H., & Son, Inc., Milwaukee, Wis. (48a)
 Schneider, Al J., Co., Shively, Ky. (16b)
 Schneider Constr. Co., Houston, Texas (42d)
 Schneider, H. W., Parkersburg, W. Va. (47a)
 Schnuerle, A. W., Aberdeen, S. Dak. (40a)
 Schoolnick, Louis, Constr. Co., Hartford, Conn. (6a)
 Schroeder & Co., Inc., Sun Valley, Calif. (4d)
 Schroeder, H. F., & Sons, Arcadia, Iowa (14a)
 Schroeder, Paul, Faribault, Minn. (22a)
 Schultz & Lindsay Constr. Co., Fargo, N. Dak. (33a)
 Schumacher, Peter, & Sons, Inc., Mishawaka, Ind. (13b)
 Schumaker Constr. Co., Michigan City, Ind. (13b)
 Schuman Constr. Co., Kohler, Wis. (48b)
 Schutt, R. L., Co., Indianapolis, Ind. (13a)
 Schwab, P. Earl, Winona, Minn. (22a)
 Schwaderer, E. B., & Co., Cass City, Mich. (21c)
 Schwake, M. G., Constr. Co., Gardnerville, Nev. (27a)
 Schwalbe, F. R., & Son, La Crosse, Wis. (48b)

A.G.C. DIRECTORY

Schwartz, David, Russell, Kans. (15b)
 Schweiger Constr. Co., Kansas City, Mo. (24a)
 Schweitzer, Adrian L., Osborne, Kans. (15b)
 Schwertner, Chas. H., & Son, Philadelphia, Pa. (37d)
 Schwep Bros., San Antonio, Texas (42f)
 Schworm, Ivan W., Grawn, Mich. (21c)
 Schye & Sullivan, White Sulphur Springs, Mont. (25a)
 Sciaba & Co., Boston, Mass. (20b)
 Seathorn Constr. Co., Cherokee, Iowa (14a)
 Scott Constr. Co., Thomasville, Ga. (10a)
 Scott, F. L., & Son, San Antonio, Texas (42e)
 Scott, W. H., Inc., Franklin, Va. (32a) (45a)
 Scroggin, J. C., Constr. Co., Nashville, Tenn. (41d)
 Scrufari Constr. Co., Inc., Niagara Falls, N. Y. (31a)
 Scullen, S. A., Waterford, N. Y. (31d)
 Sculley, C. F., Constr. Co., St. Paul, Minn. (22a)
 Scully Bros., Cincinnati, Ohio (34b)
 Seaboard Constr. Co., Chelsea, Mass. (20a)
 Seabright Constr. Co., Wheeling, W. Va. (47a)
 Seaman Co., Pittsburgh, Pa. (37b)
 Sears, M. J., Denver, Colo. (5b)
 Seastrunk, F. J., Elec. Co., Inc., Columbia, S. C. (32a)
 Seattle Constr. Co., Seattle, Wash. (46a)
 Secor Bldg. Co., Inc., Oklahoma City, Okla. (35a)
 Security Bldg. Co., Inc., Rockford, Ill. (12b)
 Security Constr. Co., Daytona Beach, Fla. (9f)
 Seines, C. S., Constr. Co., Inc., Centralia, Wash. (46d)
 Seiple, Stanford C., Sunbury, Pa. (37a)
 Selander, Edw., Lakewood, Colo. (5b)
 Sell, F. H., Constr. Co., Wichita, Kans. (15a)
 Sellen, John H., Constr. Co., Seattle, Wash. (46b) (46d)
 Selmer Co., The, Green Bay, Wis. (48b)
 Selzer-Omst Co., Wauwatosa, Wis. (48a)
 Semands, Martin B., Inc., Conroe, Texas (42d)
 Seneca Petroleum Co., Inc., Chicago, Ill. (12c)
 Senior and Palmer, Inc., New York, N. Y. (L) (29a)
 Senne, George, & Co., Topeka, Kans. (15a)
 Sennes Corp., Torrance, Calif. (4d)
 Serafini Constr. Co., Inc., Binghamton, N. Y. (31d)
 Serodino, V. P., Inc., Cincinnati, Ohio (13a)
 Sessinghaus & Ostergaard, Inc., Erie, Pa. (37a)
 Seth Lumber Co., Inc., Lincolnton, N. C. (32a)
 Sette Engr. Co., Paramus, N. J. (29a)
 Settergren, E. E., Portland, Oreg. (36b)
 Setzer, H. K., "Chip", Paving Co., Hickory, N. C. (32a)
 Severson-Schlitz, Inc., Janesville, Wis. (48b)
 Seward & Shurtleff, Fort Worth, Texas (42c)
 Seymour, John W., Raleigh, N. C. (32a)
 Shackelford, O. L., Kinston, N. C. (32a)
 Shaffer, Leonard, Co., Philadelphia, Pa. (37d)

Shandles, H. M., Philadelphia, Pa. (37d)
 Shannon, Chas., Co., Butte, Mont. (25a)
 Shappert Engr. Co., Belvidere, Ill. (12c)
 Sharp Bros. Constr. Co., The, Kansas City, Mo. (24a)
 Sharp & Fellows Constr. Co., Los Angeles, Calif. (4d) (30a)
 Sharp, Otis W., & Son, Inc., New Orleans, La. (17a)
 Sharpe, W. L., Constr. Co., Memphis, Tenn. (41c)
 Sharrock, J. A., & Sons, Marshall, Texas (42n)
 Sharrock & Pursel, Casper, Wyo. (49a)
 Shattuck, L. H., Inc., Manchester, N. H. (28a)
 Shaw, Donald F., Los Angeles, Calif. (4d)
 Shaw, J. A., Constr. Co., Fargo, N. Dak. (33a)
 Shaw, M. E., Constr. Co., Macon, Ga. (10a)
 Shaw, N. F., Inc., Anchorage, Alaska (50a)
 Shea Co., The, Alhambra, Calif. (4d)
 Shearer, A. C., Co., Chapel Hill, N. C. (32a)
 Shears, J. H., Sons, Inc., Hutchinson, Kans. (15b)
 Shedd, Wm. S., Yuba City, Calif. (4a)
 Sheehan Constr. Co., Indianapolis, Ind. (13a)
 Sheehan Pipe Line Constr. Co., Tulsa, Okla. (42m)
 Sheets, W. A., & Sons, Inc., Fort Wayne, Ind. (13b)
 Shelby Constr. Corp., Shelbyville, Ind. (13b)
 Shelby, Peter P., Los Angeles, Calif. (4d)
 Sheldon, R. W., Constr. Co., West Palm Beach, Fla. (9e)
 Shelgren, Roy A., St. Paul, Minn. (22a)
 Shelton Mill & Constr. Co., Las Vegas, Nev. (27b)
 Shelton & Son, Omaha, Nebr. (26a)
 Shelton, W. C., Co., The, Lawton, Okla. (35a)
 Shenk, Henry, Co., Erie, Pa. (37a)
 Shepherd, J. C., Shreveport, La. (17b)
 Sheridan-Punaro Co., Macon, Ga. (10a)
 Sherman Machine & Iron Works, Oklahoma City, Okla. (42j)
 Sherry-Richards Co., Chicago, Ill. (12a)
 Sherwood, A. G., Constr. Co., Independence, Kans. (15b)
 Sherwood Constr. Co., Inc., Wichita, Kans. (15b)
 Shingledecker, H. C., Pontiac, Mich. (21c)
 Shinn Constr. Co., North Miami, Fla. (9b)
 Shipp, C. H., Constr. Co., Durham, N. C. (32a)
 Shirey, C. W., Waterloo, Iowa (14a)
 Shirley Constr. Co., Omaha, Nebr. (14a)
 Shirley Constr. Co., Minot, N. Dak. (33a)
 Shirley-Herman Co., Inc., Buffalo, N. Y. (31a)
 Shockey, Howard, & Sons, Inc., Winchester, Va. (45a)
 Shockley, C. G., Constr. Co., Columbia, S. C. (32a)
 Shoemaker, Frank L., Sturgis, Mich. (21b)
 Shoemaker, R. M., Co., Philadelphia, Pa. (37d)
 Shook, Chas. H., Dayton, Ohio (34b)
 Shore, Henry, Co., Littleton, Colo. (5b)
 Short, Harry E., Tile Co., Denver, Colo. (5a)
 Shotwell, J. D., Tacoma, Wash. (46d)

Showalter, F. L., Inc., Lynchburg, Va. (32a) (45a)
 Shrum, Clyde M., Clarksburg, W. Va. (47a)
 Shuck, E. F., Seattle, Wash. (46b)
 Shuman Constr. Co., Boston, Mass. (20b)
 Shutrump, Chas., & Sons Co., The, Youngstown, Ohio (34f)
 Shuttle, A., & Co., Inc., Jenkintown, Pa. (47a)
 Siderits Constr. Co., Milwaukee, Wis. (48a)
 Siegfried, Jos. E., Lafayette, Ind. (13b)
 Siert, John, Chinook, Mont. (25b)
 Siesel Constr. Co., Milwaukee, Wis., & Pittsburgh, Pa. (37b) (48a)
 Sievers Constr. Co., Sedalia, Mo. (24a)
 Silva & Hill Constr. Co., Los Angeles, Calif. (4d)
 Silver, E. M., Albuquerque, N. Mex. (30a)
 Silver State Constr. Co., Inc., Fallon, Nev. (27a)
 Simeck, Frank, Bottineau, N. Dak. (33a)
 Simmons, J. L., Company, Inc., Decatur & Chicago, Ill. & Indianapolis, Ind. (L) (12a) (13b)
 Simon, W. A., Inc., Wilmington, N. C. (32a)
 Simonds, E. T., Constr. Co., Carbondale, Ill. (12c)
 Simpson, Eugene, & Bro., Alexandria, Va. (45a)
 Simpson, Wm., Constr. Co., The, Los Angeles, Calif. (4d)
 Sinclair, John M., Providence, R. I. (38a)
 Singleton, Musick & Co., Amarillo, Texas (42g)
 Sinnock, Pomeroy, Stockton, Calif. (4b)
 Sioux Falls Construction Company, Sioux Falls, S. Dak. (L)
 Sira, Ben, & Co., Dallas, Texas (42f) (42j)
 Siri, Arthur B., Inc., Santa Rosa, Calif. (4b)
 Sivley, W. Rufus, Abilene, Texas (42p)
 Sjoberg, N. H., & Son, Oakland, Calif. (4a)
 Sjobom Bros., Olympia, Wash. (46d)
 Sjoström & Sons, Inc., Rockford, Ill. (12b)
 Skelton, Ray W., Co., Inc., Minneapolis, Minn. (22a)
 Skilken, Jos., & Co., Columbus, Ohio (34b)
 Skilton Engr. & Constr. Corp., Louisville, Ky. (16b)
 Skinner & Garrett, Washington, D. C. (8a)
 Skinner, Dean, Austin, Texas (42f)
 Skinner & Ruddock, Inc., Charleston, S. C. (32a)
 Skousen, D. D., Albuquerque, N. Mex. (30a)
 Skousen-Hise Constr. Co., Albuquerque, N. Mex. (30a)
 Skousen, W. R., Mesa, Ariz. (2a)
 Skrainka Constr. Co., University City, Mo. (24c)
 Slate, Fred H., Co., Oreg. Ltd., Portland, Oreg. (36a)
 Slate, W. A., Seattle, Wash. (46b)
 Slater Constr. Co., Inc., Ormond Beach, Fla. (9f)
 Slatmyer, Henry G., & Son Constr. Co., The, Cleveland, Ohio (34c)
 Sletten Constr. Co., Great Falls, Mont. (25b)
 Sliens Constr. Co., Napa, Calif. (4b)
 Sloan Constr. Co., Inc., Greenville, S. C. (32a)
 Slotnick, M., Corp., Boston, Mass. (20b)
 Slotnik, J., Co., Boston, Mass. (20b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

Slovak Bros., Corpus Christi, Texas (42i)
 Smale & Robinson, Inc., Wilmington, Calif. (4d)
 Small, C. E., Dallas, Texas (42j)
 Small, Jas. H., & Co., Jacksonville, Fla. (9a)
 Small, M. M., Topeka, Kans. (15b)
 Smalley, D. R., & Sons, Inc., Celina, Ohio (13a)
 Smalling's, R. H., Sons, Macon, Ga. (10a)
 Smallman, Ralph A., & Co., Inc., Birmingham, Ala. (1a)
 Smiley, A. F., Constr. Co., Pawtucket, R. I. (38a)
 Smith, A. C., Little Rock, Ark. (3a)
 Smith, Albert L., Fort Worth, Texas (42c)
 Smith, Alfred A., Ferndale, Mich. (21a)
 Smith, Ben F., Co., Pasadena, Calif. (4d)
 Smith Bros., Noble, Okla. (35b)
 Smith Bros. Contrs., Leavenworth, Kans. (15a)
 Smith Bros. General Contrs., Inc., Vancouver, Wash. (36a)
 Smith Bldg. Co., Inc., Waco, Texas (42L)
 Smith & Buzby, Philadelphia, Pa. (37d)
 Smith, C. T., & Son, Lenoir, N. C. (32a)
 Smith-Campbell Co., Long Beach, Calif. (4d)
 Smith, Carl E., Sandyville, W. Va. (47a)
 Smith, Chas. D., & Son, Inc., Fond du Lac, Wis. (48b)
 Smith, Chas. M., Thermopolis, Wyo. (49a)
 Smith Constr. Co., Inc., Derby, Conn. (6a)
 Smith Constr. Co., Inc., Ft. Madison, Iowa (14b)
 Smith Contr. Corp., Fort Worth, Texas (42m)
 Smith-Cooke Constr. Co., St. Louis, Mo. (24c)
 Smith, Enoch, Sons Co., Salt Lake City, Utah (43a)
 Smith, Frank W., Constr. Co., San Mateo, Calif. (4b)
 Smith, Geo. T., Jr., Raleigh, N. C. (32a)
 Smith, Gerald, Constr. Co., Memphis, Tenn. (23a)
 Smith, H. C., Co., Los Angeles, Calif. (4d)
 Smith, Harold, St. Helena, Calif. (4b)
 Smith, Howard L., Cleveland, Ohio (34c)
 Smith, Inc., Fargo, N. Dak. (33a)
 Smith, Ivy H., Co., Jacksonville, Fla. (9a)
 Smith, Jas. S., Co., Inc., Newton, Mass. (20b)
 Smith & Johnson, Inc., Indianapolis, Ind. (13a)
 Smith & Jones, Gen. Contrs., Atlanta, Ga. (32a)
 Smith, L. C., San Mateo, Calif. (4b)
 Smith, L. E., Constr. Co., Tulsa, Okla. (35a)
 Smith, Linwood, Lake Village, Ark. (3a)
 Smith, Luke E., Denver, Colo. (5b)
 Smith, Noland, Constr. Co., El Reno, Okla. (35b)
 Smith, Paul, Constr. Co., Jacksonville & Tampa, Fla. (9a) (9c)
 Smith-Phillips Co., Portland, Oreg. (36b)
 Smith, R. B., Inc., Houston, Texas (42f)
 Smith, R. McDonald, Jacksonville, Fla. (9a)
 Smith, R. T., Atlanta, Ga. (10a)
 Smith, Ray L., & Son, Inc., El Dorado, Kans. (42m)
 Smith, Robt. H., & Co., Houston, Texas (42d)
 Smith & Robinson, Borger, Texas (42g)
 Smith, Roger, Waco, Texas (42j)
 Smith, W. C., Inc., Portland, Oreg. (36a)
 Smith, W. D., Co., Charleston, W. Va. (47a)

Smith, W. R., & Son, Nashville, Tenn. (41d)
 Smith, Wm. A., Constr. Co., Houston, Texas (42d)
 Smith, Wm. A., Constr. Co., Inc., Kansas City, Kans. (5b) (46c)
 Smith, Wm. A., Constr. Co. of California, Oakland, Calif. (4b)
 Smithson Constr. Co., Inc., Charleston, W. Va. (47a)
 Smolark, J. A., Ft. Washington, Pa. (37d)
 Smyth, Norman A., Co., Charlotte, N. C. (32a)
 Sneed, E. B., Constr. Co., Austin, Texas (42k)
 Sneed Constr. Co., Odessa, Texas (42p)
 Snider, W. C., Danville, Ky. (16a)
 Snodgrass, Ellis C., Inc., Portland, Me. (18a)
 Snook Bros., Corvallis, Oreg. (36a)
 Snyder, Chas. B., Great Falls, Mont. (25a)
 Snyder Constr. Co., Inc., Vincennes, Ind. (13b)
 Snyder, J. W., Co., Chicago, Ill. (12a)
 Snyder, Lawrence J., Corp., Muncie, Ind. (13b)
 Sockwell Co., Atlanta, Ga. (10a)
 Soderberg, A. W., Constr. Co., Wichita, Kans. (15a)
 Sollitt Constr. Co., Inc., South Bend, Ind. (13b) (47a)
 Sollitt, Geo., Constr. Co., Chicago, Ill. (12a)
 Solomon, David, Inc., Bethesda, Md. (8a)
 Solomon, E. J., San Andreas, Calif. (4b)
 Somers, F. L., Klamath Falls, Oreg. (36a)
 Somerville Constr. Co., Ada, Mich. (42m)
 Songdroth Bros., Mountain View, Calif. (4b)
 Sordoni Constr. Co., Inc., Wilkes-Barre, Pa. (37a)
 Sorensen Bros., Inc., Albert Lea, Minn. (22a)
 Sorensen-Gross Constr. Co., Flint, Mich. (21b)
 Sorensen, Peter, Redwood City, Calif. (4b)
 Sorenson Bros., Murray, Utah (43a)
 Sorenson, J. C., Trent, S. Dak. (40a)
 Sorenson, P. C., & Co., Inc., Dallas, Texas (42j)
 Sossamon, F. W., Jr., Gaffney, S. C. (32a)
 Sothman Constr. Co., Grand Island, Nebr. (26a)
 Soule Constr. Co., Pensacola, Fla. (9d)
 Soule, Henry M., Co., Pawtucket, R. I. (38a)
 Soule, O. L., Portland, Oreg. (36a)
 Sound Constr. & Engr. Co., Seattle, Wash. (46b) (46c)
 South Texas Constr. Co., Corpus Christi, Texas (42f)
 Southampton Hauling Co., St. Louis, Mo. (24c)
 Southeast Constr. Co., Inc., Pine Bluff, Ark. (3a)
 Southeastern Constr. Co., Charlotte, N. C. & Charleston, W. Va. (32a) (47a)
 Souther, M. E., Constr. Co., St. Paul, Minn. (22a)
 Southern Amiesite Asphalt Co., Inc., Birmingham, Ala. (1a)
 Southern Bldrs., Inc., Shreveport, La. (17b)
 Southern Bldrs., Inc., Fayetteville, N. C. (32a)
 Southern Constr. Co., Columbia, Miss. (23c)
 Southern Constr. Co., Inc., Augusta, Ga. (10a)
 Southern Constr. Co. of Charlotte, Inc., Charlotte, N. C. (32a)

Southern Contr. Co., Austin, Texas (42f)
 Southern Quarries & Contr. Div. of the New York Coal Sales Co., Columbus, Ohio (34d)
 Southern Roadbuilders, Inc., Augusta, Ga. (32a)
 Southern States Constr. Co., Columbia, S. C. (32a)
 Southwest Paving Co., Sun Valley, Calif. (4d)
 Southwest Paving Co., Houston, Texas (42j)
 Southwestern Constr. Co., Houston, Texas (42d)
 Southwestern Engr. Co., Los Angeles, Calif. (4d)
 Spangler, C. D., Constr. Co., Charlotte, N. C. (32a)
 Sparks, C. O., & Mundo Engr. Co., Inc., Los Angeles, Calif. (4d)
 Sparks Constr. Co., Oskaloosa, Iowa (14b)
 Sparks Constr. Co., Inc., Coral Gables, Fla. (9b)
 Sparks, K. A., Hamilton, Texas (42L)
 Sparks, W. P., Jr., Waco, Texas (42L)
 Spurling Constr. Co., Greensboro, N. C. (32a)
 Spears Constr. Co., Modesto, Calif. (4b)
 Speer, Paul W., Inc., Los Angeles, Calif. (4d)
 Spencer, C. B., New Orleans, La. (17a)
 Spencer & Co., Santa Fe, N. Mex. (30a)
 Spencer Constr. Co., Spencer, Iowa (14b)
 Spencer Constr. Co., Carrollton, Texas (42f)
 Spencer, E. B., Constr. Co., Waterloo, Iowa (14a)
 Spencer, Paul, San Dimas, Calif. (4d)
 Spencer, Warren, Inc., Silver Spring, Md. (8a)
 Spencer, White & Prentiss, Inc., New York, N. Y. (L)
 Spera Constr. Co., Harrisburg, Pa. (37a)
 Spicer Co., Los Angeles, Calif. (4d)
 Spiegelberg Lumber & Bldg. Co., Laramie, Wyo. (26a)
 Spieker, Henry J., Co., The, Toledo, Ohio (34c)
 Spier, L. C., Bastrop, La. (17g)
 Spong Constr. Co., Columbia, S. C. (32a)
 Spotts & Co., Newberry, S. C. (32a)
 Springmeyer Investment & Constr. Co., Murray, Utah (43a)
 Sproles, W. R., Constr. Co., Kingsport, Tenn. (41e)
 Spruce, Geo. T., Fayetteville, N. C. (32a)
 Stack Constr. Co., Milwaukee, Wis. (48a)
 Stackhouse, A. V., Co., Indianapolis, Ind. (13b)
 Stacy Bros., Inc., Johnson City, Tenn. (32a)
 Stacy, Geo. R., Tulelake, Calif. (4b)
 Stahr Co., The, Minneapolis, Minn. (22a)
 Stamey Constr. Co., Oklahoma City, Okla. (35b)
 Standard Asphalt Paving Co., Spokane, Wash. (46c)
 Standard Bitulithic, New Castle, Del. (7a)
 Standard Bitulithic Co., Newark, N. J. (29a)
 Standard Bldg. Co., San Francisco, Calif. (4a)
 Standard Constr. Co., Bozeman, Mont. (25a)
 Standard Constr. Co., Tacoma, Wash. (46d)
 Standard Constr. Co., Inc., Minneapolis, Minn. (22a)
 Standard Dredg. Corp., Los Angeles, Calif. (4d)

A.G.C. DIRECTORY

- Standard Engr. Co., Inc., Washington, D. C. (L)
- Standard Materials Co., Modesto, Calif. (4b)
- Standard Paving Co., Tulsa, Okla. (35b)
- Standard Paving Co., Fort Worth, Texas (42f)
- Standard Structures, Inc., San Rafael, Calif. (4b)
- Standard Water & Sewage Prods., Inc., Sacramento, Calif. (4b)
- Stanford, Pat H., Midland, Texas (42p)
- Stanley, Walter A., Constr. Co., Inc., Ossining, N. Y. (L)
- Stannard Constr. Co., Wichita, Kans. (15b)
- Stansfield Constr. Co., Tampa, Fla. (9c)
- Stanton-Reed Co., Los Angeles, Calif. (4d)
- Stapp, Floyd D., Constr. Co., Rapid City, S. Dak. (40a)
- Star Constr. Co., Miami, Fla. (9b)
- Stark, Don R., & Co., Inc., Ottumwa, Iowa (14b)
- Starling Constr. Co., Austin, Texas (42k)
- Starr, H. A., Portland, Ore. (36a)
- Starrett Brothers and Eken, Incorporated, New York, N. Y.; Pittsburgh, Pa.; San Francisco, & Los Angeles, Calif. (N) (4a) (4d) (37b)
- State Constr. Co., Los Angeles, Calif. (4d)
- State Constr. Co., Seattle, Wash. (36a) (46a)
- States Constr. Co., Des Moines, Iowa (14a)
- States Constr. Co., Inc., Newport News, Va. (45a)
- Staub, J. E., & Co., Fulton, Miss. (23d)
- Staunton, Thos., Great Falls, Mont. (25a)
- Stavn, H. L., Co., Inc., Hibbing, Minn. (22a)
- Steadman Constr. Co., Kingsport, Tenn. (41e)
- Stebbins, Blanchard, Manchester, N. H. (28a)
- Stebbins Constr. Co., Tulsa, Okla. (35b)
- Steed Bros., Alhambra, Calif. (4d)
- Steel City Constr. Co., Inc., Birmingham, Ala. (1a)
- Steele Bros., Crete, Nebr. (26b)
- Steele, Jack S., Constr. Co., Philadelphia, Pa. (37d)
- Steele, Pownall & Gebhardt, Philadelphia, Pa. (37d)
- Steelman Constr. Co., Oklahoma City, Okla. (35b)
- Steenberg Constr. Co., Inc., St. Paul, Minn. (22a)
- Steigerwald, Ed., & Sons, Inc., Milwaukee, Wis. (48a)
- Steilberg, H. J., & Son, Shively, Ky. (16b)
- Stein Constr. Co., Chattanooga, Tenn. (41a)
- Steinberg Constr. Co., Tulsa, Okla. (35b)
- Steiner Constr. Co., Baltimore, Md. (19a)
- Steinle-Wolfe, Inc., Fremont, Ohio (L)
- Stendell, Elvin C., San Francisco, Calif. (4a)
- Stephens Constr. Co., Parkersburg, W. Va. (47a)
- Stephens, Edgar, & Sons, Inc., Cairo, Ill. (12d) (23a)
- Stephens, J. S., & Sons, Tampa, Fla. (9c)
- Stephens Trucking Co., Stockton, Calif. (4b)
- Sterling Asphalt Paving Co., Chicago, Ill. (12c)
- Stettler, Ernest, & Sons, Logan, Utah (43a)
- Stevens, A. W., Contr. Co., Burlington, Wash. (46a)
- Stevens, Ray, Co., The, Kalamazoo, Mich. (21b)
- Stevenson Constr. Co., Salem, Ore. (36a)
- Stevenson-Pacific-Henderson, Redwood City, Calif. (4a)
- Stewart, H. R., & Co., Asheville, N. C. (32a)
- Stewart, Harvey H., Charlotte, N. C. (32a)
- Stewart, James, & Co., Inc., New York, N. Y.; Falls Church, Va.; Chicago, Ill. & Dallas, Texas (N) (19a) (31c) (42a)
- Stewart & Nuss, Inc., Fresno, Calif. (4b)
- Stewart, R. K., & Son, High Point, N. C. (32a)
- Stewart and Williams, Inc., Augusta, Maine (18a)
- Stibbard Constr. Co., Detroit, Mich. (21a)
- Stickley Bros., Inc., Burlington, W. Va. (47a)
- Stiefel, W. Herbert, Aiken, S. C. (32a)
- Stigler Constr. Co., Stigler, Okla. (35b)
- Stilfield, Ben K., Constr. Co., Inc., Rock Island, Ill. (12c)
- Stillwell Constr. Co., Macon, Ga. (10a)
- Stimm, H. F., Inc., Buffalo, N. Y. (31a)
- Stimson Corp., Dallas, Texas (42j)
- Stitt, H. W., Constr. Co., Omaha, Nebr. (26a)
- Stobs Bros. Constr. Co., Miami, Fla. (9b)
- Stock & Grove, Inc., Anchorage, Alaska (50a)
- Stock, O. A., & Co., Inc., Rochester, Minn. (22a)
- Stocker Gravel & Constr. Co., Highland, Ill. (12c)
- Stocker, L. O., Co., St. Louis, Mo. (21c)
- Stockholm, Chas., & Sons, San Francisco, Calif. (4a)
- Stocks Mill & Supply Co., Las Vegas, Nev. (27b)
- Stockton, C. T., Inc., Miami, Fla. (9b)
- Stockton Constr. Co., Inc., Stockton, Calif. (4b)
- Stockton, J. C., & Son, Augusta, Ga. (10a) (32a)
- Stoen Constr. Co., Seattle, Wash. (46a)
- Stofflet & Tillotson, Philadelphia, Pa. (37d)
- Stolte, Inc., Oakland, Calif. (4b) (4d)
- Stolz, R. A., Constr. Co., New Hampton, Iowa (14b)
- Stone, Arthur E., Pleasantville, N. J. (29a)
- Stone Constr. Co., Humboldt, Iowa (14b)
- Stone, L. L., Inc., Lawrence, Ind. (13b)
- Stone & Thaut, Spokane, Wash. (46c)
- Stone & Webster Engineering Corp., New York, N. Y.; Boston, Mass.; Chicago, Ill.; Pittsburgh, Pa.; Los Angeles, & San Francisco, Calif. & Houston, Texas (N) (4b) (4d)
- Storen, W. J., Co., Detroit, Mich. (21a) (21c)
- Storms & Frew Constr. Co., Kansas City, Mo. (15b) (24b)
- Stoud, Wm. J., Philadelphia, Pa. (37d)
- Stovall, R. B., Co., Dallas, Texas (42j)
- Stow, Mulford, Miami, Fla. (9b)
- Stowell, F. M., Tulsa, Okla. (42j)
- Straco Constr. Co., Camden, N. J. (29a)
- Strain & Brown, Inc., San Angelo, Texas (42f)
- Strain, C. Hunter, San Angelo, Texas (42f)
- Straits Constr. Co., St. Ignace, Mich. (21c)
- Strand & Sons, Seattle, Wash. (46b)
- Strandberg, L. B., & Son Co., Chicago, Ill. (12a)
- Sirandberg, Stewart O., Co., Chicago, Ill. (12a)
- Strizek, Jere, Sacramento, Calif. (4b)
- Strom Constr. Co., Grand Rapids, Mich. (21b)
- Strom & Strom, Muskegon, Mich. (21b)
- Strong Co., Springville, Utah (43a)
- Strong & Harmon, Raleigh, N. C. (32a)
- Strong, "Les," Constr. Co., Whitney Point, N. Y. (31d)
- Strong & Macdonald, Inc., Tacoma, Wash. (36a) (46d)
- Strong, Walter H., Savannah, Ga. (10a)
- Strother-Barge Co., Atlanta, Ga. (10a)
- Strother, J. P., Constr. Co., Eldon, Iowa (14a)
- Strother & Riehm, Inc., Eldon, Iowa (14a)
- Stroud-Seabrook, Chula Vista, Calif. (4c)
- Stroup, D. Glenn, Gastonia, N. C. (32a)
- Struck Constr. Co., Louisville, Ky. (16b)
- Strunk Bros., Tiskilwa, Ill. (12c)
- Strunk Constr. Co., Somerset, Ky. (16a)
- Stuart, T., & Sons Co., Watertown, Mass. (20a)
- Stuckey & Carroll Constr. Co., San Gabriel, Calif. (4d)
- Studebaker, Tom, Constr. Co., Granite City, Ill. (12d)
- Stump, Robt., Lincoln, Nebr. (26b)
- Stump & Stradinger, Moberg, S. Dak. (40a)
- Stuntz-Yeoman Co., Inc., Delphi, Ind. (13a)
- Sturm & Co., Inc., Philadelphia, Pa. (37d)
- Suber & Co., Inc., Whitmire, S. C. (32a)
- Subgrade Engr. Corp., Bell, Calif. (4d)
- Suburban Engr. & Constr. Co., Branchville, Md. (19b)
- Sugden & Siver, Inc., Hazel Park, Mich. (21c)
- Suits, Harry J., Watkins Glen, N. Y. (31d)
- Sullivan, A. L., Birmingham, Ala. (1a)
- Sullivan & Cozart, Louisville, Ky. (16b)
- Sullivan, D. A., Parkwater, Wash. (45c)
- Sullivan-Foster, Inc., New Bedford, Mass. (20b)
- Sullivan, Frank P., Inc., East Haven, Conn. (6a)
- Sullivan, Long & Hagerty, Inc., Bessemer, Ala. (1a)
- Sully-Miller Contr. Co., Long Beach, Calif. (4d)
- Summerbell Roof Structures, Los Angeles, Calif. (4d)
- Summit Constr. Co., Rapid City, S. Dak. (33a) (40a) (49a)
- Summit Constr. & Fixture Co., Akron, Ohio (34a)
- Sumner, Chas. V., Dallas, Texas (42a)
- Sumner Constr. Co., Nashville, Tenn. (41d)
- Sumsion, J. M., & Sons, Springville, Utah (43a)
- Sundt, M. M., Constr. Co., Tucson, Ariz. (2a)
- Sunset Constr. Co., San Antonio, Texas (42f)
- Superior Constr. Co., Gary, Ind. (13b)
- Superior Constr. Co., Greensboro, N. C. (32a)
- Superior Constr. Co., Seattle, Wash. (46a)
- Surace, J. P., Constr. Co., Seattle, Wash. (46a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Susi, P. E., & Co., Pittsfield, Me. (18a)
 Sussex, R. H., Bellingham, Wash. (46a)
 Suttle, Chas. M., Oklahoma City, Okla. (35a)
 Sutton Co., Inc., Radford, Va. (47a)
 Swain Constr. Co., Inc., Kingstree, S. C. (32a)
 Swalling Constr. Co., Inc., Anchorage, Alaska (50a)
 Swan Constr., Inc., Cincinnati, Ohio (34b)
 Swanburg Constr. Corp., Manchester, N. H. (28a)
 Swanson, Arnold, & Co., Hastings, Nebr. (26b)
 Swanzy, Ralph, Weslaco, Texas (42a)
 Swatok Constr. Co., Oklahoma City, Okla. (42j)
 Sweet, J. S., Cambridge City, Ind. (13a)
 Sweetman Constr. Co., Sioux Falls, S. Dak. (40a)
 Sweitzer, J. S., & Son, Inc., St. Paul, Minn. (22a)
 Swenson, Carl N., Co., Inc., San Jose, Calif. (4a)
 Swenson Carlson Bldrs., Inc., East Chicago, Ind. (13b)
 Swenson Constr. Co., Kansas City, Mo. (15b) (24a)
 Swett, E. D., Winchester, N. H. (28a)
 Swift Constr. Co., Columbus, Ga. (10a)
 Swigart, John J., Co., Torrance, Calif. (4d)
 Swilling & Boyd, Pineville, La. (42j)
 Swinerton & Walberg Co., San Francisco, Calif. & Denver, Colo. (4a) (5a)
 Swing Constr. Co., Grand Forks, N. Dak. (33a)
 Swords-McDougal Co., Peoria, Ill. (12c)
 Syar, C. M., Vallejo, Calif. (4b)
- T**
- T. G. K. Constr. Co., Inc., Phoenix, Ariz. (2a)
 T-S Constr. Engrs., Inc., Los Angeles, Calif. (4d)
 Taber-Carmody Co., Grand Rapids, Mich. (21c)
 Tabone & Barbera, Pittston, Pa. (37a)
 Tacoma Constr. & Engr. Co., Tacoma, Wash. (46d)
 Taggart Constr. Co., Cody, Wyo. (25a) (49a)
 Taggart, Henry M., Inc., Philadelphia, Pa. (37d)
 Tait, W. C., San Francisco, Calif. (4a)
 Talarico Constr. Corp., Herkimer, N. Y. (31d)
 Talbott, A. W., Buffalo Springs, Va. (32a)
 Talbott-Myers Constr. Corp., Winchester, Ky. (16a)
 Tammings, John S., Denver, Colo. (5a)
 Tankersley Constr. Co., Oklahoma City, Okla. (35a)
 Tanner Bros. Constr. Co., Phoenix, Ariz. (2a)
 Tarlton, G. L., Contr. Co., St. Louis, Mo. (5b) (12d) (24b) (24c)
 Tate, C. G., Constr. Co., Concord, N. C. (32a)
 Tatesch, Frank, Silver City, N. Mex. (30b)
 Tavares Constr. Co., La Jolla, Calif. (4c)
 Taylor Bros. Co., Inc., Birmingham, Mich. (21c)
 Taylor, C. B. & M. R., Decorah, Iowa (14a)
 Taylor Constr. Co., Miami, Fla. (9b)
 Taylor Constr. Co., Asheville, N. C. (32a)
 Taylor Constr. Co., Inc., Elizabethton, & Johnson City, Tenn. (32a) (41c)
 Taylor, E. F., Co., Inc., Goldsboro, N. C. (32a)
 Taylor, F. H., Co., Detroit, Mich. (21a)
 Taylor, H. J., Constr. Co., Salina, Kans (15b)
 Taylor, Jas. T., & Son, Inc., Fort Worth, Texas (42c)
 Tecon Constr. Co., Inc., Dallas, Texas (42f)
 Teer, Nello L., Co., Durham, N. C. (32a)
 Teichert, A., & Son, Inc., Sacramento, Calif. (N) (4b) (4d)
 Tellepsen Constr. Co., Houston, Texas (42i) (42h) (42j)
 Temple, Arthur, Jr., & Assoc., Inc., Diboll, Texas (42d)
 Temple Housing Corp., Temple, Texas (42k)
 Templeton, C. E., Houston, Texas (42d)
 Templeton-Cannon, San Angelo, Texas (42p)
 Templeton, E. J., Everett, Wash. (46a)
 Tennesse Constr. Co., Fargo, N. Dak. (33a) (40a)
 Terrell Constr. Co., Des Moines, Iowa (14b)
 Terteling, J. A., & Sons, Inc., Boise, Idaho (N) (11a)
 Tester, John, & Son, Inc., Washington, D. C. (8a)
 Testman, John T., Albuquerque, N. Mex. (30b)
 Teton Constr. Co., Cheyenne, Wyo. (49a)
 Teufel, Geo. E., Co., Seattle, Wash. (46b)
 Texas Bitulithic Co., Dallas, Texas & New Orleans, La. (17c) (42f)
 Texas-Gulf Constr. Co., Inc., Houston, Texas (42d)
 Texas-Louisiana Contrs., Fort Worth, Texas (42m)
 Tharp, Harold, Fountain City, Ind. (13a)
 Tharp, Joe B., San Angelo, Texas (42p)
 Theisen Bros., Osmond, Nebr. (26b)
 Thibodeaux, Robt., Co., Inc., Baton Rouge, La. (17d)
 Thiele Bros., Allen Grove, Wis. (48b)
 Thise, C. P., Harlingen, Texas (42o)
 Thomas, B. Miles, Co., San Francisco, Calif. (4b)
 Thomas, Bennett & Hunter, Inc., Westminster, Md. (19b)
 Thomas Co., Inc., Huntington, W. Va. (47a)
 Thomas Constr. Co., Ketchikan, Alaska (50a)
 Thomas Constr. Co., Fresno, Calif. (4b)
 Thomas Constr. Co., Billings, Mont. (25a)
 Thomas, G. W., Drayage & Rigging Co., Inc., San Francisco, Calif. (4b)
 Thomas J. B., Charlotte, N. C. (32a)
 Thomas, J. F., & Son, Shreveport, La. (17b)
 Thomas & Ratliff, Rogers, Texas (42f)
 Thomas Rigging Co., Emeryville, Calif. (4b)
 Thomason, C. Y., Co., Greenwood, S. C. (32a)
 Thompson, A. R., Contr., Inc., Rutherfordton, N. C. (32a)
 Thompson-Arthur Paving Co., Greenboro, N. C. (32a)
 Thompson Asphalt Co., Madison, Ill. (12c)
 Thompson Constr. Co., Inc., Indianapolis, Ind. (13a)
 Thompson, Donald, Modesto, Calif. (4a)
 Thompson, E. S., Los Angeles, Calif. (4d)
 Thompson, F. N., Charlotte, N. C. (32a)
 Thompson, Frank, Jackson, Miss. (23b)
 Thompson, J. A., & Son, Inglewood, Calif. (4d)
 Thompson, J. M., Co., Raleigh, N. C. (32a)
 Thompson, Jas., & Sons, Ames, Iowa (14b)
 Thompson, Jim S., Oklahoma City, Okla. (35b)
 Thompson & Morton Co., Kilgore, Texas (42n)
 Thompson, O. G., & Sons, Burlington, N. C. (32a)
 Thompson-Schmidt Co., The, Detroit, Mich. (21a)
 Thompson-Starrett Co., Inc., New York, N. Y. (20b) (31c)
 Thompson & Street Co., Birmingham, Ala. & Atlanta, Ga. (1a) (10a)
 Thomsen-Abbott Constr. Co., Marshfield, Wis. (48b)
 Thorburn & Logozo, Seattle, Wash. (46a)
 Thorgersen & Erickson Co., Chicago, Ill. (12a)
 Thorington Constr. Co., Inc., Richmond, Va. (45a)
 Thorn Constr. Co., Inc., Springville, Utah (43a)
 Thornton Constr. Co., Hancock, Mich. (21c)
 Thorp Constr. Co., Inc., Evansville, Ind. (13c)
 Thorson Constr. Co., Balaton, Minn. (22a)
 Three A Bldrs., Inc., Evansville, Ind. (13c)
 Thurman, John M., Borger, Texas (35a)
 Thygesen, Henry, & Co., Albuquerque, N. Mex. (30a)
 Tiberti, J. A., Constr. Co., Las Vegas, Nev. (27b)
 Tidewater Construction Corporation, Norfolk, Va. (N) (45a)
 Tidmarsh Engr. Co., Tucson, Ariz. (2a)
 Tidmore Constr. Co., Lubbock, Texas (42p)
 Tiffany Constr. Co., Phoenix, Ariz. (2a)
 Till, Archie L., Yuba City, Calif. (4b)
 Tillman, G. E., Co., Inc., Centralia, Ill. (12c)
 Timber Structures, Inc., Portland, Oreg. (36b)
 Timmons Constr. Co., Amarillo, Texas (42g)
 Tinker, H. G., Macon, Ga. (10a)
 Tinney Drilling Co., Grafton, W. Va. (47a)
 Tisdell & Newton, Lubbock, Texas (42p)
 Tobin, Edwin J., Co., Berkeley, Calif. (4b)
 Tobin, J. A., Constr. Co., Kansas City, Kans. (15b) (24b)
 Tocchi Bros. Constr. Co., Newtonville, Mass. (20b)
 Todd, R. R., Santa Rosa, Calif. (4a)
 Toebe, Walter, & Co., Lansing, Mich. (21c)
 Tolboe & Harlin Constr. Co., Salt Lake City, Utah (43a)
 Tolboe & Wootton Constr. Co., Provo, Utah (43a)
 Tomblison & Huck, Inc., Salinas, Calif. (4a)
 Tomei Constr. Co., Van Nuys, Calif. (4d)
 Tomlinson & Hawley, Inc., Bridgeport, Conn. (6a)
 Tomlinson, T. R., Doyline, La. (17c)
 Tompkins, Chas. H., Co., Washington, D. C. (N) (8a)
 Tompkins-Curlett-Wunderlich, Salisbury, N. C. (32a)
 Tonn & Blank, Inc., Michigan City, Ind. (13b)
 Torpey, Michael J., Inc., Woodside, N. Y. (31d)
 Torrington Bldg. Co., The, Torrington, Conn. (6a)
 Torvik & Sons Constr. Co., Decorah, Iowa (14a)

A.G.C. DIRECTORY

Toth Constr. Co., Muskegon Heights, Mich. (21c)
 Tousley, H. D., Co., Inc., Indianapolis, Ind. (13b)
 Towles, E. B., Constr. Co., Wilmington, N. C. (32a)
 Towne Constr. Co., Philadelphia, Pa. (37d)
 Townsend & Bottum, Inc., Ann Arbor, Mich. (21b)
 Townsend & Elfreth Co., Philadelphia, Pa. (37d)
 Trager, Frank, Chillicothe, Mo. (24b)
 Transocean Engr. Corp., San Lorenzo, Calif. (4b)
 Traverso, T. W., Seattle, Wash. (46a)
 Traylor Bros., Inc., Evansville, Ind. (13a) (13c)
 Tredennick-Billings Co., The, Boston, Mass. (20b)
 Trepte Constr. Co., San Diego, Calif. (4c)
 Tri-State Asphalt Corp., Martins Ferry, Ohio & Wheeling, W. Va. (34d) (47a)
 Tri-State Constr. Co., Amarillo, Texas (42g)
 Tri-State Constr. Co., Memphis, Tenn. (41c)
 Tri-State Constr. Co., The, Indianapolis, Ind. (13a)
 Tri-State Engr. Co., Benton, Ill. (12c)
 Tri-State Excavating Co., Fargo, N. Dak. (33a)
 Tri-States Constr. Co., Little Rock, Ark. (3a)
 Triangle Bldg. Co., Inc., Idaho Falls, Idaho (11a)
 Triangle Constr. Co., Sacramento, Calif. (4b)
 Triangle Constr. Co., Boise, Idaho (11a)
 Triangle Constr. Co., Kankakee, Ill. (12c)
 Triangle Constr. Co., Greenville, S. C. (32a)
 Triangle Rock & Gravel Co., San Bernardino, Calif. (4d)
 Trier, Fred C., Constr. Co., Saginaw, Mich. (21b)
 Trimble Co., The, Pittsburgh, Pa. (37b) (37c)
 Trinidad Asphalt Mfg. Co., St. Louis, Mo. (12c) (24b)
 Triple Cities Constr. Co., Inc., Binghamton, N. Y. (31d)
 Triplett, F. A., Inc., Chester, S. C. (32a)
 Tritt Bros., Belleville, Ill. (12c)
 Trojan Constr. Co., Inc., Oklahoma City, Okla. (42m)
 Trompeter Constr. Co., Peru, Ill. (12c)
 Trotti & Thomson, Inc., Beaumont, Texas (42f)
 Troup Bros., Inc., Miami, Fla. (9b)
 Trousdale Constr. Co., Los Angeles, Calif. (4d)
 Troutman, E. N., Goldsboro, N. C. (32a)
 Troxell, J. A., Enumclaw, Wash. (46a)
 Tru-Mix Concrete Co., Medford, Oreg. (36a)
 Trueheart, J. C., Constr. Co., San Antonio, Texas (42j)
 Trumbull-Nelson Co., Inc., Hanover, N. H. (28a)
 Tuck, A. M., Greenwood, S. C. (32a)
 Tuck & Malpass, Inc., Norfolk, Va. (45a)
 Tuckahoe Constr. Co., Inc., Tuckahoe, N. Y. (31d)
 Tucker, F. A., Inc., Rutland, Vt. (28a)
 Tuckman-Barbee Constr. Co., Inc., Washington, D. C. (8a)

Tudor Constr. Co., Alexandria, La. (17f)
 Tuller Construction Company, The, Red Bank, N. J. (N)
 Tully & Dinapoli, Inc., Flushing, N. Y. (31d)
 Tully, John C., Co., Chicago, Ill. (12a)
 Tulsa Rig, Reel & Mfg. Co., Tulsa, Okla. (35a)
 Tunnichiff Constr. Co., Davenport, Iowa (14b)
 Turchin, Robt. L., Inc., Miami Beach, Fla. (9b)
 Turgeon, E., Constr. Co., Inc., Providence, R. I. (38a)
 Turnbull, B. F., Inc., Seattle, Wash. (46b)
 Turner Construction Co., New York, N. Y.; Fairmont Heights, Md.; Philadelphia, & Pittsburgh, Pa.; Boston, Mass. & Chicago, Ill. (N) (8a) (12a) (20b) (31c) (37b) (37d) (48b)
 Turner Constr. Co., Memphis, Tenn. (41c)
 Turner Constr. Co., & Barton-Malow Co., Ypsilanti, Mich. (21a)
 Turner, J. M., & Co., Inc., Roanoke, Va. (45a)
 Turner, Luther A., & Son, Buda, Texas (42f)
 Turnquist, O. E., Constr. Co., Seattle, Wash. (46b)
 Tuttle, C. B., Co., Long Beach, Calif. (4b) (4d)
 Tuttle, Morton C., Co., Boston, Mass. (20b)
 Tvedt, L. A., Memphis, Tenn. (23a) (41c)
 Twait, Ford J., Co., Los Angeles, Calif. (4d)
 Tway, R. R., Co., Oklahoma City, Okla. (35b)
 Twin Falls Constr. Co., Twin Falls, Idaho (11a)
 Tye & Wells, Eminence, Ky. (16a)
 Tyler, R. B., Co., Louisville, Ky. (16a)
 Tyson & Watters, Inc., Sacramento, Calif. (4b)

U

Uldesen, Robt., Denver, Colo. (5a)
 Uhl Constr. Co., Allison Park, Pa. (37b)
 Uhlhorn, W. B., Harlingen, Texas (42o)
 Ulland Bros., Austin, Minn. (22a)
 Underground Constr. Co., Oakland, Calif. (4b)
 Underseth, Theo, Helena, Mont. (25b)
 Union Bldg. & Constr. Corp., Passaic, N. J. (29a)
 Union Constr. Co., Atlanta, Ga. (10a)
 Union Constr. Co., Inc., Missoula, Mont. (25a)
 Union Paving Co., Philadelphia, Pa. (29a)
 United Bldg. Constr. Co., Philadelphia, Pa. (37d)
 United Concrete Pipe Corp., Baldwin Park, Calif. (4b) (4d)
 United Construction Co., Winona, Minn. & Long Beach, Calif. (N) (4d) (22a)
 United Constr. Co., Memphis, Tenn. (41c)
 United Contr. Co., Portland, Oreg. (36a)
 United Engineers & Constructors Inc., Philadelphia, Pa. (N)
 United States Constr. Corp., Anaheim, Calif. (4d)
 Universal Bridge Co., Inc., Kansas City, Mo. (15b)

Universal Constr. Co., Kansas City, Mo. (24a)
 Universal Constr., Inc., Milwaukee, Wis. (48a)
 Unkefer Bros. Constr. Co., Philadelphia & Pittsburgh, Pa. (37b) (37d)
 Upchurch, W. K., Constr. Co., Montgomery, Ala. (1a)
 Upham, Dale, West Union, Iowa (14a)
 Upton-Lang Co., Erie, Pa. (37a)
 Ursprung, R. S., Co., Cleveland, Ohio (34c)
 Utah Construction Co., Salt Lake City, Utah; Denver, Colo. & San Francisco, Calif. (N) (4b) (4d) (5a) (36a) (43a)
 Utah Constr. Co. & C. H. Leavell & Co., Los Alamos, N. Mex. (30b)
 Utility Bldrs., Inc., Great Falls, Mont. (25a)
 Utility Constr. Co., South Gate, Calif. (4d)
 Utility Constr. Co., Tacoma, Wash. (46d)
 Utility Constr. Co., Div. of Aetna Ind. Corp., New Brunswick, N. J. (29a)
 Utility Contractors, Seattle, Wash. (46a)
 Utility Contrs., Inc., Wichita, Kans. (15b)
 Utley, A. T., Cape Girardeau, Mo. (24b)
 Utley, J. A., Co., Detroit, Mich. (21a)
 Uvalde Constr. Co., Dallas, Texas (42f) (42j)

V

Vaclavick Constr. Co., El Campo, Texas (42d)
 Valle, Henrik, Co., Inc., Seattle, Wash. (46b) (50a)
 Valley Bldrs., Inc., Spring Valley, Ill. (12c)
 Valley Bldg. Co., Roswell, N. Mex. (30b)
 Valley Constr. Co., Seattle, Wash. (46a)
 Valley Crushing Co., Boise, Idaho (11a)
 Valley Engr. Co., St. Charles, Ill. (12c)
 Valley Engr. & Constr. Co., Grand Forks, N. Dak. (33a)
 Valley Paving & Constr. Co., Inc., Pismo Beach, Calif. (4b) (4d)
 Van Bokkelen-Cole Co., Oakland, Calif. (4a)
 Van Buskirk, Harold, & Co., Inc., Houston, Texas (42d)
 Van Buskirk, Ira, & Sons, Hawarden, Iowa (14a)
 Vance Bros., Kansas City, Mo. (15b) (24b)
 Van Cleve Constr. Co., Houston, Texas (42d)
 Vandegrift, John I., Co., The, Cumberland, Md. (19b) (47a)
 Vander Veen, E. J., Grand Rapids, Mich. (21c)
 Vander Veen, P., & Sons, Grand Rapids, Mich. (21c)
 Vandivort Constr. Co., Wenatchee, Wash. (46b)
 Van Dusseldorp, Eben, Colfax, Iowa (14a)
 Van Eyck, T., Tampa, Fla. (9c)
 Vang, Geo., Inc., Pittsburgh, Pa. (37c)
 Van Kleeck, Wm., New Paltz, N. Y. (31d)
 Van Laer, Edw., Inc., Charlottesville, Va. (45a)
 Van Sant Bros., Inc., Wilmington, Del. (7a)
 Van Valkenburgh, N. P., & Co., South Gate & Sacramento, Calif. (4b) (4d)
 Van Winkle & Co., Atlanta, Ga. (10a)
 Van Winkle, W. F. & D. E., Golden, Colo. (5b)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

W

- Vapley & Co., Inc., Cambridge, Mass. (20b)
 Vara Constr., Inc., Boston, Mass. (20b)
 Vardeman, T. R., & Son, Nacogdoches, Texas (42f)
 Varnum, Walter, Coeur d'Alene, Idaho (46e)
 Vasey Constr. Co., Carlsbad, N. Mex. (30b)
 Vaughan, Fell, North Little Rock, Ark. (3a)
 Vawter, Fane F., & Co., Des Moines, Iowa (14b)
 Veale Constr. Co., Seattle, Wash. (46b)
 Vecellio & Grogan, Beckley, W. Va. (47a)
 Vecellio, Oscar, Beckley, W. Va. (47a)
 Vega Engr. & Grading Co., Berkeley, Calif. (4b)
 Verhey Constr. Co., Chattanooga, Tenn. (41a)
 Vermilya-Brown Company, Inc., New York, N. Y. (N) (31c)
 Vernon Bros. Co., Boise, Idaho (11a)
 Vernon Paving Co., Inc., Los Angeles, Calif. (4d)
 Verrier, Robt. A., Constr. Co., Portland, Me. (18a)
 Versaggi Bros. Constr. Co., Wildwood, N. J. (29a)
 Vest & Bartell Constr. Co., Cincinnati, Ohio (34b)
 Vicini, Joe, Placerville, Calif. (4b)
 Vick, Wm. C., Raleigh, N. C. (32a)
 Viesko & Post, Salem, Oreg. (36b)
 Viette, Jas. J., Littleton, N. H. (28a)
 Vilbig Bros., Inc., Dallas, Texas (42a)
 Villa Contr. Co., Inc., Westfield, N. J. (29a)
 Villard Contr., Inc., Hastings-on-Hudson, N. Y. (29a)
 Vincent-Peterson Co., Salt Lake City, Utah (43a)
 Vinnell Co., Inc., Alhambra, Calif. (2a) (4b) (4d)
 Vinroot, G. E., Charlotte, N. C. (32a)
 Vinson Constr. Co., Phoenix, Ariz. (2a)
 Vinton Constr. Co., Coldwater, Mich. (21c)
 Viperman Constr. Co., Beckley, W. Va. (47a)
 Virginia Engineering Co., Inc., Newport News, Va. (N) (45a)
 Visintine & Co., Columbus, Ohio (34d)
 Vivrett & Vivrett, Dallas, Texas (42a)
 Vizzini, Philip, Baltimore, Md. (19a)
 Vlacich, Robt., Los Angeles, Calif. (4d)
 Vogel Bros. Bldg. Co., Madison, Wis. (48b)
 Vogt, Elmer, Inc., Massillon, Ohio (34d)
 Vokes, H. L., Co., Inc., The, Cleveland, Ohio (34c)
 Volden, Verdie J., Inc., Farmington, Minn. (22a)
 Vollmar Bros. Constr. Co., St. Louis, Mo. (12d) (24c)
 Vollmer, C. W., & Co., Inc., Houston, Texas (23a)
 Vollmer, Clarence E., Constr. Co., Wichita, Kans. (15a)
 Volpa Bros., Fresno, Calif. (4b)
 Volpe Constr. Co., Malden, Mass. (20b)
 Volpe, S., & Co., Inc., Boston, Mass. (20b)
 von Rosenberg, H. J., San Antonio, Texas (42e)
 Vowell Constr. Co., El Paso, Texas (42f)
 Vulcan Copper & Supply Co., The—Constr. Div., Cincinnati, Ohio (34b)
- W-M Corp., Chicago, Ill. (12a)
 Waale-Camplan Co., Portland, Oreg. (36b)
 Waddell, J. R., & Sons, Charlotte, N. C. (32a)
 Wade, Henry F., Barnesville, N. C. (32a)
 Wadhams & May Co., The, Hartford, Conn. (6a)
 Waggoman-Styron Co., Albuquerque, N. Mex. (30b)
 Wagner, Chas. E. W., Co., Inc., Richmond, Ind. (13b)
 Wagner Constr. Co., Austin, Minn. (22a)
 Wagner Constr. Co., Burlington, Vt. (28a)
 Wagner, Inc., Cincinnati, Ohio (34b)
 Wagner, Karl B., Austin, Texas (42j)
 Wagoner Constr. Co., Salisbury, N. C. (32a)
 Waitman, E. J., Harlingen, Texas (42o)
 Walbridge, Aldinger Co., Detroit, Mich. (21a)
 Walco Engr. & Constr. Co., Tulsa, Okla. (35a)
 Walden, Fulton & Payne, Lubbock, Texas (42p)
 Waldron, Edward M., Incorporated, Newark, N. J. (L)
 Walker, A. W., & Son, Mt. Sterling, Ky. (16a)
 Walker, C. Glenn, Co., Ft. Dodge, Iowa (14b)
 Walker, Geo. W., & Sons, Inc., Buffalo, N. Y. (31a)
 Walker, J. B. & R. E., Salt Lake City, Utah (43a)
 Walker-Lewis Contr. Co., Mobile, Ala. (1a)
 Walker, P. J., Co., Los Angeles, Calif. (4d)
 Wallace & Bowden, Dallas, Texas (42f)
 Wallace, W. H., Constr. Co., Dallas, Texas (42a)
 Wallace & Wallace Contrs., Phoenix, Ariz. (2a)
 Wallace, Wm., Philadelphia, Pa. (37d)
 Walling Constr. Co., Lewistown, Mont. (25a)
 Wallstrom, Geo. W., Inc., Youngstown, Ohio (34f)
 Walser, Don, Everett, Wash. (46b)
 Walser, John F., Pontiac, Mich. (21c)
 Walsh & Burney Co., San Antonio, Texas (42e)
 Walsh Construction Company, New York, N. Y.; Davenport, Iowa & San Francisco, Calif. (N) (4b) (4d)
 Walsh Constr. Co., Electra, Texas (42j)
 Walsh & Ikeler, Gary, Ind. (13a)
 Walsh, J. A., Corpus Christi, Texas (42i)
 Walsh, T. H., & Argo Engr. Co., Los Angeles, Calif. (4d)
 Walsh & Vollmer Constr. Co., McKinney, Texas (23a)
 Walsh-Weaver Constr. Co., Inc., Jackson, Miss. (23a)
 Walters Sand Co., Manhattan, Kans. (15b)
 Walton, J. S., & Co., Mobile, Ala. (1a)
 Wambold, Edgar M., Philadelphia, Pa. (37d)
 Wandel, Bruce B., Pittsburgh, Pa. (37c)
 Wannamaker & Wells, Inc., Orangeburg, S. C. (32a)
 Ward, C. P., Inc., Rochester, N. Y. (31d)
 Ward and Ward, Las Vegas, Nev. (27b)
 Ward, Ken, Constr. Co., Portland, Oreg. (36a)
 Ward, O. J., Inc., Shreveport, La. (17e)
 Wark & Co., Philadelphia, Pa. (37d)
- Warlick, L. A., Contr. Co., Chattanooga, Tenn. (41a)
 Warm, J. & E., Co., The, Cincinnati, Ohio (34b)
 Warner, A. R., & Son, Waynesboro, Pa. (37a)
 Warner Constr. Co., San Angelo, Texas (42p)
 Warrack, J. B., Co., Seattle, Wash. & Anchorage, Alaska (46b) (50a)
 Warranty Paving Co., Summit, N. J. (29a)
 Warren Bros. Road Co., Cambridge, Mass.; Fairfield, Me. & Birmingham, Ala. (1a) (18a) (31d)
 Warren Engr. Co., Warren, Ohio (34f)
 Warren Northwest, Inc., Portland, Oreg. (36a)
 Warren-Southwest, Inc., Torrance, Calif. (4d)
 Watter Constr. Co., Tacoma, Wash. (46d)
 Washburn Constr. Co., Centerville, Iowa (14b)
 Washington Asphalt Co., Seattle, Wash. (46a)
 Wasielewski, E. J., Phoenix, Ariz. (2a)
 Waterbury & Chapek, Sacramento, Calif. (4a)
 Waterfall Constr. Co., Ogden, Utah (43a)
 Waters Constr. Co., Elizabethtown, Ky. (16a)
 Waters, John N., Audubon, N. J. (29a)
 Watkins, C. W., & Son, Boise, Idaho (11a)
 Watkins & Snowden, Meridian, Miss. (23d)
 Watkins, Ted, Linden, Calif. (4b)
 Watson, Fred O., Co., Minneapolis, Minn. (22a)
 Watson, M. W., Topeka, Kans. (15a) (15b)
 Wattinger, R. H., Richmond, Va. (45a)
 Watts, Cleat T., Rochdale, Miss. (23a)
 Watts Constr. Co., The, Toledo, Ohio (34e)
 Watts, J. G., Constr. Co., Portland, Oreg. & Seattle, Wash. (36a) (46b)
 Wattson, R. A., Co., North Hollywood, Calif. (4b) (4d)
 Waugh, H. A., Constr. Co., Inc., Barre, Vt. (28a)
 Waxberg, A. E., Constr. Co., Fairbanks, Alaska (50a)
 Wayland, John F., Washington, Kans. (15a)
 Wayman, W. M., Constr. Co., Cherokee, Iowa (14b)
 Wayne Constr. Co., Inc., Kingsport, Tenn. (41e)
 Wayne, Engr. & Constr. Co., Inc., Mt. Olive, N. C. (32a)
 Wayne Paving, Inc., Fort Wayne, Ind. (13a)
 Weaver Bros. Constr. Co., Concord, N. H. (28a)
 Weaver Constr. Co., Iowa Falls, Iowa (14a)
 Weaver Constr. Co., Corpus Christi, Texas (42i)
 Weaver Crane & Trucking Co., Inc., Charleston, W. Va. (47a)
 Weaver, M. O., Inc., Des Moines, Iowa & Muskogee, Okla. (14a) (35b)
 Weaver, W. H., Constr. Co., Inc., Greensboro, N. C. (32a)
 Webb, Del E., Constr. Co., Phoenix, Ariz. & Los Angeles, Calif. (N) (2a) (4a) (4d) (27b)
 Webb, T. A., Austin, Texas (42k)
 Webb & White, Los Angeles, Calif. (4d)
 Weber, Herman, Inc., Beaumont, Texas (42d) (42h)
 Wedding & Cochran, Amarillo, Texas (42g)
 Weeks Constr. Co., Inc., Kansas City, Mo. (24a)

A.G.C. DIRECTORY

- Wehr, Edw. A., Pittsburgh, Pa. (37b)
 Weikel Constr. Co., Inc., The, Fort Wayne, Ind. (13a)
 Weill Lumber Co., Abbeville, La. (17f)
 Weinstein Constr. Co., Akron, Ohio (34a)
 Weir Contr. Co., Detroit, Mich. (21c)
 Weise Bros., Austin, Texas (42k)
 Weiss, R. L., & Son, Fountain City, Tenn. (41b)
 Weist, Ray, Yakima, Wash. (46c)
 Weitz Co., Inc., The, Des Moines, Iowa (14a) (14b)
 Welch Constr. Co., Shreveport, La. (17b)
 Welcome, J. J., Constr. Co., Seattle, Wash. (46a)
 Welden Bros., Iowa Falls, Iowa (14a)
 Welden, O. E., Seattle, Wash. (46b)
 Weldon Contr. Co., Westfield, N. J. (29a)
 Weller & Boucher Constr. Co., Wichita, Kans. (15a)
 Weller Bros., Spokane, Wash. (46c)
 Wells Cargo, Inc., Reno, Nev. (27a)
 Wells Constr. Co., Tulsa, Okla. (35a)
 Wells & Wells, Inc., St. Louis, Mo. (24c)
 Welsh, J. H., & Son Constr. Co., Phoenix, Ariz. (2a)
 Wendel Constr. Co., El Campo, Texas (42f)
 Wermuth, Inc., Fort Wayne, Ind. (13b) (21a)
 Werner Co., The, Shreveport, La. (17b)
 Werner, Geo. K., & Son, Clay Center, Nebr. (26b)
 Werner, H. C., Inc., Eugene, Oreg. (36a)
 Wescott, Louis S., Pittsburgh, Pa. (37c)
 Wesley & Co., Inc., Atlanta, Ga. (10a)
 Wessell Constr. Co., Memphis, Tenn. (41c)
 West Bldg. Co., Inc., Winston-Salem, N. C. (32a)
 West, J. H., & Sons, Birmingham, Ala. (1a)
 West, P. S., Constr. Co., Inc., Statesville, N. C. (32a)
 West Shore Constr. Co., Zeeland, Mich. (21c)
 Westbrook & Pope, Sacramento, Calif. (4b)
 Westcott-Bowen Constr. Co., Lincoln, Nebr. (26a)
 Western Asphalt Co., Seattle, Wash. (46a)
 Western Constr. Co., Pocatello, Idaho (11a)
 Western Constr. Co., Inc., Lake Charles, La. (17c)
 Western Constr., Inc., Greeley, Colo. (5b)
 Western Constrs., Inc., Phoenix, Ariz. (2a)
 Western Contracting Corporation, Sioux City, Iowa; Los Angeles & Los Banos, Calif. (N) (2a) (4b) (4d) (5b) (14a) (15b) (26b) (40a) (42f)
 Western Crane Service, Berkeley, Calif. (4b)
 Western Engr. Co., Harlan, Iowa (14a)
 Western Motor Transfer, Inc., Santa Barbara, Calif. (4d)
 Western Pipe Line Constrs., Inc., Austin, Texas (42m)
 Western Reserve Bldg. Co., Inc., The, Warren, Ohio (34f)
 Western States Engrs., Inc., Los Angeles, Calif. (4d)
 Western U. S. Constr. Co., San Fernando, Calif. (4d)
 Westlake Constr. Co., St. Louis, Mo. (24c)
 Westphal, John C., Co., Detroit, Mich. (21a)
 Wetherby, J. P., Constr. Co., Ottawa, Ill. (12c)
 Wetmore, W. G., Jackson, Miss. (23b)
 Wexler Constr. Co., Inc., Brookline, Mass. (20b)
 Wey-Leonard Constr. Co., Atlanta, Ga. (10a)
 Weymouth Constr. Co., Memphis, Tenn. (23a)
 Whalley Constr. Co., Savannah, Ga. (10a)
 Wheatley, Geo. W., & Son, Dupon, Ill. (12d)
 Wheeler, C. F., Bldr., Miami, Fla. (9b)
 Wheeler, Earl C., Hartford, Conn. (6a)
 Wheeler & Tempest, Salt Lake City, Utah (43a)
 Wheeler & Trotz, Albuquerque, N. Mex. (30a)
 Wheelwright Constr. Co., Ogden, Utah (43a)
 Whetzel Bros., Champaign, Ill. (12c)
 Whitaker, Guy C., Shreveport, La. (17b)
 Whitcomb, Arthur, Constr. Co., Inc., Keene, N. H. (28a)
 Whitcomb, Frank W., Constr. Corp., North Walpole, N. H. (28a)
 White, A. P., & Assos., Charlotte, N. C. (32a)
 White, Barclay, & Co., Inc., Philadelphia, Pa. (37d)
 White Bros. Constr. Co., Inc., Walla Walla, Wash. (36a)
 White Constr. Co., Pensacola, Fla. (9d)
 White Constr. Co., Inc., Boston, Mass. (20b)
 White Constr. Co., Inc., New York City (31c)
 White Constr. Co., The, Chicago, Ill. (13a)
 White Constr. & Engr. Co., St. Petersburg, Fla. (9c)
 White, Howard J., Inc., Palo Alto, Calif. (4a)
 White, L. M., Contr. Co., Tucson, Ariz. (2a)
 White, Noble W., Seattle, Wash. (46b)
 White, Richard, Sons, Inc., West Newton, Mass. (20b)
 White, Wm. L., & Son, Terre Haute, Ind. (13a)
 Whitehead, I. L., Co., Sault Ste. Marie, Mich. (21c)
 Whitehurst Constr. Co., Ponca City, Okla. (35a)
 Whiting, Floyd S., Murray, Utah (43a)
 Whiting & Haymond, Springville, Utah (43a)
 Whitley, D. A., Co., Spokane, Wash. (46c)
 Whitmeyer, Geo. A., & Sons Co., Ogden, Utah (43a)
 Whitmore, C. B., Co., Lockport, N. Y. (31d)
 Whitmyer Bros., Hammonton, N. J. (29a)
 Whittenberg Constr. Co., Louisville, Ky. (16b)
 Whittle, R. D., Constr. Co., Dallas, Texas (42j)
 Whitmore Constr. Co., Albuquerque, N. Mex. (30b)
 Whitton Bros., Charlotte, N. C. (32a)
 Whitty Constr. Co., Washington, D. C. (8a)
 Wick Constr. Co., Seattle, Wash. (46b)
 Wickes Engr. & Constr. Co., Des Moines, Iowa (14b)
 Wickham & Jessup Constr. Co., Eau Gallie, Fla. (9f)
 Wiechmann & Probasco, Inc., Reno, Nev. (27a)
 Wigton-Abbott Corporation, Plainfield, N. J. (N) (37d)
 Wikstrom, A. S., Skaneateles, N. Y. (29a) (31d)
 Wilborn Constr. Co., Birmingham, Ala. (1a)
 Wilburn & Son, Asheville, N. C. (32a)
 Wilcox, Ira C., Co., Pittsburgh, Pa. (37b)
 Wilcox, Jack, Huntington Park, Calif. (4d)
 Wilder, C. V., Co., Bellingham, Wash. (46a)
 Wilder, F. E., Olympia, Wash. (46a)
 Wildes Constr. Co., Waterloo, Iowa (14b)
 Wildman, R. H., Constr. Co., Iowa City, Iowa (14b)
 Wile, Henry E., Co., Newton Centre, Mass. (20b)
 Wilhelm, F. A., Indianapolis, Ind. (13b)
 Wilkes Contr. Corp., Buffalo, N. Y. (31d)
 Wilkins Constr. Co., Pittsburgh, Pa. (37c)
 Willamette Tug & Barge Co., Portland, Oreg. (36a)
 Willard, A. Y., Charleston, S. C. (32a)
 Willard-Brent Co., Los Angeles, Calif. (4d)
 Williams-Austin Co., Pittsburgh, Pa. (42m)
 Williams Bros. Co., Tulsa, Okla. (42m)
 Williams Bros.-Davis Co., Houston, Texas (42m)
 Williams & Burrows, Inc., Burlingame, Calif. (4a)
 Williams & Burrows, Inc., & Carl N. Swenson Co., Inc., Burlingame, Calif. (4d)
 Williams, Cole, Inc., Dallas, Texas (42j)
 Williams Constr. Co., Baltimore, Md. (19b)
 Williams Constr. Co., Inc., Tigard, Oreg. (36a)
 Williams Constr. Co., Inc., Houston, Texas (42d)
 Williams Constr. & Drilling Co., Denver, Colo. (5b)
 Williams Equip. Co., Fairbanks, Alaska (50a)
 Williams, H. A., Allentown, Pa. (37a)
 Williams, H. K., Louisville, Ky. (16a)
 Williams, J. E., Constr. Co., St. Louis, Mo. (24c)
 Williams, J. L., Constr. Co., Inc., Bellaire, Texas (42j)
 Williams, R. R., Owensboro, Ky. (13c)
 Williams Waterproofing & Painting Co., Los Angeles, Calif. (4d)
 Willingham Constr. Co., St. Louis, Mo. (24c)
 Willis, C. G., & Sons, Inc., Los Angeles, Calif. (4d)
 Willis Constr., Branchville, Sussex Co., N. J. (29a)
 Willis, T. S., Janesville, Wis. (48b)
 Willis, Perry E., Inc., Miami, Fla. (9b)
 Willman Constr. Co., The, Cedar Rapids, Iowa (14a)
 Willson, Jack, Downey, Calif. (4d)
 Willy Constr. Co., Dubuque, Iowa (14b)
 Wilmoth, Tom, Longview, Texas (42n)
 Wilsam, Geo., Wichita, Kans. (15a)
 Wilson Bros., Inc., Parkersburg, W. Va. (47a)
 Wilson, C. T., Contr. Co., St. Louis, Mo. (12d) (24c)
 Wilson Constr. Co., Lincoln, Nebr. (26a)
 Wilson Constr. Co., Walterboro, S. C. (32a)
 Wilson Constr. Co., Inc., Salisbury, N. C. (32a)
 Wilson Constr. Co., Inc., Johnstown, Pa. (37a)

(Numerals after names indicate the Chapter in which member belongs—See Key to Listing of A. G. C. Units—page 245). N—National Member (page 347). L—Local Member.

- Wilson Constr. Corp., Radford, Va. (45a)
 Wilson, Frank H., Ardmore, Pa. (37d)
 Wilson, G. L., Bldg. Co., Statesville, N. C. (32a)
 Wilson, H. P., New Castle, Del. (7a)
 Wilson, J. L., Bloomfield, Ind. (13a)
 Wilson-Ledford Constr. Co., Inc., Gastonia, N. C. (32a)
 Wilson, Mark K., Co., Chattanooga, Tenn. (41a)
 Wilson, Robt. M., Guttenberg, Iowa (14a)
 Wilson, S. M., & Co., Granite City, Ill. (12d)
 Wiltgen Constr. Co., LeMars, Iowa (14b)
 Winans Constr. Co., Inc., The, Linden, N. J. (29a)
 Windham & Sons, Inc., Livingston, Texas (42d)
 Wininger & Selby, Inc., New York, N. Y. (37d)
 Winkelman, D. W., Carolina Co., Greensboro, N. C. (32a)
 Winkelman, D. W., Co. Inc., Syracuse, N. Y. (N) (31d) (37c)
 Winn-Senter Constr. Co., Kansas City, Mo. (21a)
 Winner, B. L., Co., Inc., Pittsburgh, Pa. (37b)
 Winslow Constr. Co., Salem, Ind. (13a)
 Winston Bros. Company, Minneapolis, Minn.; Loveland, Colo. & Monrovia, Calif. (N) (4d) (5b) (22a) (24b)
 Wintz, Frank I., & Son, Philadelphia, Pa. (37d)
 Wirtz, Walter E., Amarillo, Texas (42g)
 Wise Constr. Co., Richmond, Va. (45a)
 Wise, E. D., Chattanooga, Tenn. (41a)
 Wise, J. H., & Son, Boise, Idaho (11a)
 Wisner & Miller, Lodi, Calif. (4a)
 Witcher, Dean L., Inc., Minneapolis, Minn. (22a)
 Witt Constr. Co., Provo, Utah (43a)
 Witters Constr. Co., Inc., Miami, Fla. (9b)
 Woehl, A. J., Bastrop, Texas (42k)
 Woermann Constr. Co., St. Louis, Mo. (24c)
 Worth, Herman R., Columbus, Nebr. (26a)
 Wohl-Calhoun Co., Los Angeles, Calif. (4d)
 Wohlfeld, Nathan, Dallas, Texas (42d)
 Wohlgemuth, C., Jr., Washington, D. C. (8a)
 Wolf Constr. Co., Logansport, Ind. (13b)
 Wolfe, M. H., & Co., Inc., Granite City, Ill. (12d)
 Wolfe, Monroe J., New Orleans, La. (23a)
 Wolff, Arthur C., Inc., Milwaukee, Wis. (48a)
 Wolff, DeGraff, St. Paul, Minn. (22a)
 Wolter, W. H., Corpus Christi, Texas (42i)
 Womack Constr. Co., Phoenix, Ariz. (2a)
 Wonderly Constr. Co., Long Beach, Calif. (4d)
 Wood & Barton Co., Frankfort, Ky. (16a)
 Wood, Claude C., Co., Lodi, Calif. (4b)
 Wood, Clyde W., & Sons, Inc., North Hollywood, Calif. (4b) (4d)
 Wood, Earl R., Ainsworth, Iowa (14b)
 Wood, Louis A., Houston, Texas (42d)
 Wood, Milo, & Son, Newton, Iowa (14b)
 Wood, W. E., Co., Detroit, Mich. (21a)
 Woodall Bros., Eagle, Idaho (11a)
 Woodcock, O. P., Co., Jacksonville, Fla. (9a)
 Wooding, C. F., Co., The, Wallingford, Conn. (6a)
 Woodrich Constr., Inc., Hopkins, Minn. (22a)
 Woodruff, H. E., Corpus Christi, Texas (42i)
 Woodruff, W. E., Co., Houston, Texas (42d)
 Woods, C. C., Constr. Co., Durham, N. C. (32a)
 Woodward Constr. Co., Rock Springs, Wyo. (49a)
 Woodward, L. A., Constr. Co., Missoula, Mont. (25a)
 Woodworth & Co., Inc., Tacoma, Wash. (46d)
 Woolley, J. E., Fairhope, Ala. (1a)
 Wooten Constr. Co., Little Rock, Ark. (3a)
 Worcester, John C., San Antonio, Texas (42e)
 Word, Dean, & Co., New Braunfels, Texas (42f)
 Worrell, M. E., Junction, Texas (42f)
 Worrell & Watkins, Dallas, Texas (42f)
 Worth Constr. Co., Fort Worth, Texas (42f)
 Wrenn-Wilson Constr. Co., Durham, N. C. (32a)
 Wright Constr. Co., Williamston, Mich. (21c)
 Wright Constr. Co., Raleigh, N. C. (32a)
 Wright, Fred., Constr. Co., Nashville, Tenn. (41d)
 Wright, Howard S., & Co., Inc., Seattle, Wash. (46b) (46d)
 Wright & Kremers, Inc., Niagara Falls, N. Y. (31a)
 Wright & Maugh Constr. Co., Leland, Miss. (23d)
 Wright & Morrissey, Inc., Burlington, Vt. (28a)
 Wright, Robt. R., Clayton, Mo. (24c)
 Wright, Sanford, Everett, Wash. (46b)
 Wright, W. V., Constr. Co., Dallas, Texas (42f)
 Wunderlich Contracting Company, Omaha, Nebr. (N) (5b)
 Wylie Bros., Albuquerque, N. Mex. (30a)
 Wyman, A. P., Inc., Waterville, Me. (18a)
 Wyman & Simpson, Inc., Augusta, Me. (18a)
 Wyoming Constr. Co., Laramie, Wyo. (49a)
 Wyoming Improvement Co., Denver, Colo. (49a)
 Wyse, Harry O., Lexington, Ky. (16a)
 Yant Constr. Co., Omaha, Nebr. (26b)
 Yeager, E. L., Co., Riverside, Calif. (4d)
 Yenter, J. C., Tyrone, Pa. (37a)
 Yerington, John G., Benton Harbor, Mich. (21c)
 Yett & Conley, Portland, Oreg. (50a)
 Yett, Porter W., Portland, Oreg. (36a)
 Yocom, O. C., McMinnville, Oreg. (36a)
 York Bldg. Co., Raleigh, N. C. (32a)
 Young & Adams, Inc., Baltimore, Md. (19a)
 Young Constr. Co., St. Joseph, Mo. (15b)
 Young Constr. Co., Rock Hill, S. C. & Charlotte, N. C. (32a)
 Young, F. E., Constr. Co., San Diego, Calif. (4c)
 Young Foundation Corp., Teaneck, N. J. (29a)
 Young, Fred, Memphis, Tenn. (41c)
 Young, J. E., Pipeline Contr., Inc., Los Angeles, Calif. (4d)
 Young, J. R., Constr. Co., Inc., Fayetteville, N. C. (32a)
 Young, L. A., Constr. Co., Richfield, Utah (43a)
 Young, L. R., Constr. Co., Olney, Ill. (42m)
 Young, Perce, Bldg. Constr., Salt Lake City, Utah (43a)
 Young & Smith Constr. Co., Salt Lake City, Utah (43a)
 Young & Sons Constr. Co., Inc., Chicago, Ill. (12a)
 Young, W. M., Tracy, Calif. (4b)
 Youngman, H. D., Baxter Springs, Kans. (15b) (35b)
 Youngs, Claude L., Sacramento, Calif. (4b)
 Yount, R. F., Co., Kittanning, Pa. (37c)
 Younts, E. E., Inc., High Point, N. C. (32a)
 Zachry, H. B., Co., San Antonio, Texas (N) (42d) (42f) (42i) (42m)
 Zandonella, John, Bridgeport, Conn. (6a)
 Zara Constr. Co., Inc., West Hicksville, L. I., N. Y. (31d)
 Zeller, Max J., Inc., Columbus, Ohio (34d)
 Zellfelder, Albert, & Co., Inc., Philadelphia, Pa. (37d)
 Zempter, J. W., Contr. Co., Inc., Galveston, Texas (42d)
 Zerkel Constr. Co., Inc., Arlington, Va. (8a)
 Zimmerly Constr. Co., Paris, Ill. (12c)
 Zimmerman, Louis, Jr., Hillside, N. J. (29a)
 Zinzow Constr. Co., Inc., Elkhorn, Wis. (48b)
 Zioebro, Stanley J., Inc., East Rutherford, N. J. (29a)
 Zitterell-Mills Co., Webster City, Iowa (14b)
 Zull, C. Louis, Cincinnati, Ohio (34b)
 Zwack, Anton, Inc., Dubuque, Iowa (14b)

Roster by States

I. ALABAMA

(a) ALABAMA BRANCH

President—W. R. J. Dunn, Jr., Dunn Constr. Co., Inc., 2508 3d Ave., No., Birmingham 3, Ala.

Executive Secretary—J. B. Rawls, 1028 7th Ave., So., P. O. Box 1269, Birmingham 5, Ala.
Telephone: 4-5547-8

Allen, R. J., Contr. Co., P. O. Box 3881, Fairview, Birmingham 8, Ala. (B)

Brasfield, Thos. C., 3025 6th Ave., Birmingham, Ala. (B)

Brice Bldg. Co., Inc., 1021 2d Ave., No., Box 1028, Birmingham 1, Ala. (B)

Buchanan, P. A., Contr. Co., 610 3d Ave., W., P. O. Box 1903, Birmingham, Ala. (B-Hvy)

Burgess, A. E., Contr. Co., 3700 10th Ave., No., Birmingham, Ala. (H)

Burke, J. P., 269 N. 4th St., Box 123, Gadsden, Ala. (B)

Coston, W. L. & Sons, 1st National Bank Bldg., Birmingham, Ala. (B)

Couch Constr. Co., Dothan, Ala. (H-Hvy-RR)

Daniel Constr. Co., P. O. Box 1511, Birmingham, Ala. (B)

Daugette, F. R., P. O. Box 1730, Birmingham, Ala. (B)

Dethlefs & Hannon, Anniston, Ala. (B)

Dillard, J. E., P. O. Box 52, Bessemer, Ala. (B)

Dillard, J. E., & Sons, 2901 N. 19th St., Bessemer, Ala. (B)

Donahoe, A. G., Contr. Co., 1013 3d Ave., So., Birmingham, Ala. (Hvy)

Donahoe, H. N., 520 1st Ave., No., Birmingham, Ala. (B)

Dunn Constr. Co., Inc., 2508 3d Ave., No., Birmingham 3, Ala. (B-H-Hvy-RR)

Ellard Contr. Co., Inc., P. O. Box 35, Irondale Sta., Birmingham 10, Ala. (H-Hvy-RR)

Hoar, F. R., & Son, Inc., 2808 19th Pl., So., Birmingham, Ala. (B)

Hodges & Co., Inc., P. O. Box 998, Anniston, Ala. (H)

Holley, J. F., 905 6th Ave., No., Birmingham, Ala. (B)

Hooks, C. F., 2500 Shades Crest Rd., Birmingham, Ala. (B)

Howton, W. C., Contr. Co., 3904 10th Ave., No., Birmingham, Ala. (H)

Morgan-Holloman Constr. Co., P. O. Box 434, Tuscaloosa, Ala. (B)

Morris, W. E., 800 4th Ave., No., Birmingham, Ala. (B)

Moss-Thornton Co., Inc., P. O. Box 82, Leeds, Ala. (H)

Paul, Ed., 1145 15th Way, S. W., Birmingham, Ala. (B)

Paul, G. A., 14 Bonita Dr., Birmingham, Ala. (B)

Perusini Constr. Co., 720 S. 28th Ave., Homewood, Ala. (B)

Richardson Constr. Co., 3100 7th Ave., So., Birmingham 5, Ala. (B)

Rives Constr. Co., 1015 7th Ave., So., Birmingham, Ala. (B)

Roberts, Jack A., 1318 N. 23d St., P. O. Box 1890, Birmingham, Ala. (B)

Robins Engr., 805 Acton Ave., Birmingham 9, Ala. (B)

Smallman, Ralph A., & Co., Inc., 1109 5th Ave., So., Birmingham, Ala. (B)

Southern Amiesite Asphalt Co., Inc., 3401 5th Ave., No., P. O. Box 1390, Birmingham 1, Ala. (B-H-Hvy-RR)

Steel City Constr. Co., Inc., 217 Clark Bldg., Birmingham, Ala. (B)

Sullivan, A. L., 3711 3d Ave., So., P. O. Box 3098, Avondale Sta., Birmingham, Ala. (B)

Sullivan, Long & Hagerty, Inc., 2028 2d Ave., No., Bessemer, Ala. (B-H-Hvy)

Thompson & Street Co., 1831 7th Ave., So., Birmingham, Ala. (B)

Warren Bros. Roads Co., 400 S. 41st St., P. O. Box 549, Birmingham, Ala. (H)

West, J. H., & Sons, 4210 1st Ave., No., Birmingham 6, Ala. (B)

Wilborn Constr. Co., 830 2d Ave., No., Birmingham, Ala. (B)

Woolley, J. E., Fairhope, Ala. (Hvy)

Roberts & Long Constr. Co., Merchants Bank Bldg., Mobile, Ala. (B)

Walker-Lewis Constr. Co., 58 St. Francis St., P. O. Box 703, Mobile, Ala. (B)

Walton, J. S., & Co., P. O. Box 863, Mobile, Ala. (H-Hvy)

Montgomery Section

President—W. K. Upchurch, W. K. Upchurch Constr. Co., Box 1189, Montgomery, Ala.

Secretary-Treasurer—Neil C. Andrew, Andrew & Dawson, 32 Clayton, P. O. Box 1301, Montgomery, Ala.

Andrew & Dawson, 32 Clayton, P. O. Box 1301, Montgomery, Ala. (B)

Bear Bros., Inc., P. O. Box 1149, Montgomery, Ala. (B)

Butler & Cobbs, 723 Bell Bldg., P. O. Box 1608, Montgomery, Ala. (B)

Jones, A. Berney, 409 Monroe St., P. O. Box 1528, Montgomery, Ala. (B)

Upchurch, W. K., Constr. Co., Box 1189, Montgomery, Ala. (B)

2. ARIZONA

(a) ARIZONA CHAPTER

President—R. M. Makemson, Wallace & Wallace Constr., P. O. Box 470, Phoenix, Ariz.

Secretary—Joseph P. Condrey, 324 Luhrs Bldg., Phoenix, Ariz.
Telephone: 4-1818

Allied Constr. Co., 1502 W. Thomas, Phoenix, Ariz. (B)

Arizona Concrete Pipe Co., 1746 W. Fillmore, Phoenix, Ariz. (Hvy)

Arizona Sand & Rock Co., P. O. Box 596, Phoenix, Ariz. (H-Hvy)

Ashton Bldg. Co., 2025 E. 22d, Tucson, Ariz. (B)

Associated Constr. Co., 1001 E. Missouri, Phoenix, Ariz. (B)

Beall, I. G., P. O. Box 1453, Phoenix, Ariz. (H)

Bechtel Corp., 220 Bush St., San Francisco 4, Calif. (B-H-Hvy)

Benton Constr. Co., 2800 S. Central, Phoenix, Ariz. (H)

Benz, Dale, Inc., P. O. Box 6007, Phoenix, Ariz. (B)

Bradley & Dysart, 2726 E. Picadilly, Phoenix, Ariz. (H)

Construction Materials Co., P. O. Box 2768, Tucson, Ariz. (H)

Cook, Geo. F., Constr. Co., 2833 Lyndale Ave., So., Minneapolis 8, Minn. (B)

Daley Constr.-Acme Materials Co., Box 1590, Phoenix, Ariz. (H-Hvy)

Daum-Donaldson Constr. Co., 321 S. 24th St., Phoenix, Ariz. (B-Hvy)

Duhamel, Elmer W., Constr. Co., 2250 E. Washington, Phoenix, Ariz. (B)

Farmer & Godfrey, 4202 E. Osborn Rd., Phoenix, Ariz. (B)

Mobile Section

President—E. H. Gessner, Ewin Engr. Co., P. O. Box 361, Mobile 3, Ala.
Executive Secretary—J. R. Klumpp, 764 St. Michael St., Mobile, Ala.
Telephone: 3-9642

Bay City Constr. Co., P. O. Box 1286, Mobile 7, Ala. (B)

Bernard & Byrd, P. O. Box 1688, Mobile, Ala. (B-Hvy)

Bost, P. M., 52 DeMouy Ave., Mobile, Ala. (B)

Cohron, H. V., 352 Cohron St., Crichton Sta., Mobile, Ala. (B)

Conley Constr. Co., 1100 S. Conception St., Mobile, Ala. (B)

Cropp, E. H., Constr. Co., 1508 Eslava St., Mobile 19, Ala. (B)

Davis, T. H., 2508 O'sage St., Mobile 17, Ala. (B)

Ernest Constr. Co., 1810 Old Shell Rd., Mobile 17, Ala. (Hvy)

Ewin Engr. Corp., P. O. Box 361, Mobile 3, Ala. (B-H-Hvy)

Gulf Constr. Co., 106 St. Anthony St., P. O. Box 358, Mobile 3, Ala. (B-Hvy)

Hancock Co., 310 St. Michael St., P. O. Box 1515, Mobile, Ala. (H-Hvy)

Higgison, Peyton, 59½ St. Francis St., P. O. Box 402, Mobile, Ala. (B)

Massengale Cement Co., 187 Lyons Park Ave., Mobile 17, Ala. (B)

Newman, Stanley W., Co., Inc., Merchants National Bank Bldg., P. O. Box 1646, Mobile, Ala. (B)

Pate, J. F., Constr. Co., Annex 1st National Bank Bldg., P. O. Box 375, Mobile 3, Ala. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

ARIZONA—Continued

Fisher Contr. Co., P. O. Box 4035, Phoenix, Ariz. (H-Hvy)
 Flickinger, D. A., 1261 E. Cambridge, Phoenix, Ariz. (H)
 Grafe-Callahan Constr. Co., 1st National Bank Bldg., Dallas, Texas (H-Hvy)
 Gustafson, B. L., 1700 E. Campbell Ave., Phoenix, Ariz. (H)
 Hagen, Harry J., Globe, Ariz. (H)
 Hallmark Constr. Co., P. O. Box 6073, Tucson, Ariz. (Hvy)
 Henson, W. J., Box 471, 817 Crest Ave., Prescott, Ariz. (H)
 Heuser & Garnett, 731 N. 19th Ave., Phoenix, Ariz. (H)
 Isbell Constr. Co., Inc., P. O. Box 2351, Reno, Nev. (H)
 Johnson Constr. Co., Box 4036, Tucson, Ariz. (H)
 Kelton, John C., & Son, 4525 N. 7th St., Phoenix, Ariz. (H)
 Kitchell-Phillips Constr., Inc., 1706 W. Buchanan, Phoenix, Ariz. (B)
 Kolob Constr. Co., P. O. Box 1832, Phoenix, Ariz. (H)
 Laing-Garrett Constr. Specialties, Inc., 4700 N. Central Ave., Phoenix, Ariz. (B)
 Larsen, A. A., P. O. Box 1790, Phoenix, Ariz. (H)
 Macco Corp., 14409 Paramount Blvd., Paramount, Calif. (H-Hvy)
 Maddox, C. L., Box 1011, Phoenix, Ariz. (B)
 Mardian Constr. Co., 1314 N. 21st Ave., Phoenix, Ariz. (B)
 Marshall, Haas & Royce, P. O. Box 95, Belmont, Calif. (H-Hvy)
 Martin Constr. Co., P. O. Box 934, Tucson, Ariz. (H)
 McGinty Constr. Co., 503 Luhrs Bldg., Phoenix, Ariz. (B)
 McKee, Robt. E., P. O. Box 217, El Paso, Texas (B-Hvy)
 Mohamed Earthmoving Contr., 1700 S. 1st St., Phoenix, Ariz. (H)
 Newbery Elec. Corp. of Arizona, 2146 E. Washington, Phoenix, Ariz. (Hvy)
 New State Elec. Co., 214 W. Washington, Phoenix, Ariz. (Hvy)
 Orr & Orr Constr. Co., 302 W. Monte Vista Rd., Phoenix, Ariz. (H)
 Pacific Pipeline Constr. Co., 1632 S. Greenwood Ave., Montebello, Calif. (Hvy)
 Panelcrete Engr. Co., 1900 Beverly Blvd., Los Angeles 4, Calif. (B-H-Hvy)
 Payne, Dale, 2345 W. Thomas Rd., Phoenix, Ariz. (H)
 Phoenix-Tempe Stone Co., P. O. Box 1670, Phoenix, Ariz. (H-Hvy)
 Pinner, Arthur, Jr., 116 W. 94th St., Los Angeles, Calif. (H-Hvy)
 Pioneer Constrs., Inc., Box 2768, Tucson, Ariz. (H)
 Price, Lyle, P. O. Box 548, Flagstaff, Ariz. (H)
 Putter, Frank A., 722 N. Main, Tucson, Ariz. (B)
 Reliance Truck Co., P. O. Box 2293, Phoenix, Ariz. (H)
 Royden, H. L., P. O. Box 3707, Phoenix, Ariz. (H-Hvy)
 Sale, Paul L., Steel Mfg. Co., Inc., 116 E. 4th Ave., Mesa, Ariz. (H)
 San Xavier Rock & Sand Co., P. O. Box 1031, Tucson, Ariz. (H)
 Skousen, W. R., P. O. Box 71, Mesa, Ariz. (H)
 Sundt, M. M., Constr. Co., P. O. Box 2592, Tucson, Ariz. (B-Hvy)
 T. G. K. Constr. Co., Inc., 802 Security Bldg., Phoenix, Ariz. (B)
 Tanner Bros. Constr. Co., 731 N. 19th Ave., Phoenix, Ariz. (H-Hvy)
 Tidmarsh Engr. Co., P. O. Box 2425, Tucson, Ariz. (B-Hvy)
 Tiffany Constr. Co., P. O. Box 846, Phoenix, Ariz. (H-Hvy)
 Vinnell Co., Inc., 1145 Westminster Ave., Alhambra, Calif. (H-Hvy)
 Vinson Constr. Co., 2020 W. Grant Ave., P. O. Box 930, Phoenix, Ariz. (H-Hvy)
 Wallace & Wallace Contrs., P. O. Box 470, Phoenix, Ariz. (H)
 Wasielewski, E. J., 24 E. Glendale Ave., Phoenix, Ariz. (B)
 Webb, Del E., Constr. Co., P. O. Box 4066, Phoenix, Ariz. (B-Hvy)
 Welsh, J. H., & Son Contr. Co., 805 S. Central Ave., Phoenix, Ariz. (Hvy)
 Western Constrs., Inc., P. O. Box 1604, Phoenix, Ariz. (H-Hvy)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy)
 White, L. M., Contr. Co., P. O. Box 6008, Tucson, Ariz. (H)
 Womack Constr. Co., Box 2414, Phoenix, Ariz. (B-Hvy)

3. ARKANSAS

(a) ARKANSAS CHAPTER

President—Artie Gregory, Box 1108, Little Rock, Ark.
 Secretary-Treasurer—Ray Metzger, Meers Bldg., Box 2421, Little Rock, Ark.
 Telephone: 279621 & 58643
 Armbrust, E. E., 107 Atkins St., North Little Rock, Ark. (B)
 Arney, Arthur J., 1503 Ohio St., P. O. Box 841, Pine Bluff, Ark. (B)
 Baldwin Co., The, 213 Wallace Bldg., Little Rock, Ark. (B)
 Bralei Homes, Inc., Box 232, North Little Rock, Ark. (B)
 Branton Co., P. O. Box 2260, Little Rock, Ark. (B)
 Burden, Geo. H., Co., Inc., E. 5th & McLean Sts., Little Rock, Ark. (B)
 Carty, Herman, 213 Riegler Bldg., Little Rock, Ark. (B)
 Coogan, Thos. P., Co., 435 Hialeah Dr., Hialeah, Fla. (B)
 Davis, R. H., Box 36, Stamps, Ark. (H)
 Ditmars-Dickmann-Pickens Constr. Co., Gazette Bldg., Little Rock, Ark. (B)
 Dixon, S. M., 307 Chestnut St., Warren, Ark. (H)

Evans, S. E., Constr. Co., Box 903, Fort Smith, Ark. (H-Hvy-RR)
 Forsgren Bros., P. O. Box 368, Fort Smith, Ark. (H)
 Four Bros., Inc., P. O. Box 167, Sweet Home, Ark. (H-Hvy)
 Fraser Constr. Co., Inc., P. O. Box 717, Fort Smith, Ark. (B)
 G. W. L. Constr. Co., P. O. Box 270, North Little Rock, Ark. (B)
 Garms, Grady, 29th & Elm Sts., P. O. Box 823, Little Rock, Ark. (H)
 Gregory, Artie, Box 1108, Little Rock, Ark. (H)
 Hammock, R. W., Rt. 1, Van Buren, Ark. (B-H-Hvy-RR)
 Higgins, R. T., P. O. Box 813, Hot Springs, Ark. (B)
 Hill, D. B., 619 Parker St., P. O. Box 2437, Little Rock, Ark. (H-RR)
 Hogan, Ben M., & Co., Box 2860, Little Rock, Ark. (H-Hvy)
 James, Worth, Constr. Co., 1007 Pyramid Bldg., Little Rock, Ark. (H)
 Jones, D. F., Constr. Co., Box 2660, Little Rock, Ark. (H-Hvy)
 Joyce, Van, Co., The, 1511 Gum St., North Little Rock, Ark. (B)
 Keaton Constr. Co., Box 425, Jacksonville, Ark. (H-Hvy)
 Kelley-Nelson Constr. Co., P. O. Box 1678, Little Rock, Ark. (B)
 Knight, L. H., Co., 112½ E. 7th St., P. O. Box 1378, Little Rock, Ark. (B)
 Linebarger Constr. Co., 1112 Fair Park Blvd., Little Rock, Ark. (B)
 M & L Constr. Co., 207 Riegler Bldg., Little Rock, Ark. (H-Hvy)
 May, G. W., Box 306, Little Rock, Ark. (B)
 McClinton Bros. Constr. Co., 310 Ozark Theatre Bldg., Box 749, Fayetteville, Ark. (Hvy)
 McGeorge Contr. Co., Inc., Box 248, Pine Bluff, Ark. (H-Hvy)
 Mississippi Valley Contr. Co., Inc., P. O. Box 97, Paragould, Ark. (H-Hvy)
 Mode & McCracken, Conway, Ark. (H-Hvy)
 Peterson, Garbi & Joseph, Inc., 123 E. 9th St., North Little Rock, Ark. (B)
 Pyle, J. E., P. O. Box 1679, Little Rock, Ark. (B)
 Reynolds & Williams, 115 N. Spring St., P. O. Box 1207, Little Rock, Ark. (H)
 Richardson & Kendrick, 224 N. Gaines, Little Rock, Ark. (B)
 Smith, A. C., 4306 Asher Ave., Box 8, Asher Ave. Sta., Little Rock, Ark. (B)
 Smith, Linwood, Box 369, Lake Village, Ark. (H-Hvy-RR)
 Southeast Constr. Co., Inc., P. O. Box 16, 127½ Main St., Pine Bluff, Ark. (H-Hvy)
 Tri-States Constr. Co., 316 Hall Bldg., Little Rock, Ark. (B)
 Vaughan, Fell, 1100 W. 2d St., P. O. Box 430, North Little Rock, Ark. (H-Hvy)
 Wooten Constr. Co., 609 Wallace Bldg., Little Rock, Ark. (B)

4. CALIFORNIA

(a) CENTRAL CALIFORNIA
CHAPTER

President—Frank F. Burrows, Williams & Burrows, Inc., 10 California Dr., Burlingame, Calif.

Secretary-Manager—Frank G. Corker, 850 Battery St., San Francisco 11, Calif.

Telephone: Yukon 6-5969

Acme Constr. Co., 827 13th St., Modesto, Calif. (B)

Akard, W. C., 225 Cervantes Blvd., San Francisco 23, Calif. (B)

American Pipe & Constr. Co., P. O. Box 3428, Terminal Annex, Los Angeles 54, Calif. (Hvy)

Amoroso, S. J., Constr. Co., 2100 Oakdale Ave., San Francisco 24, Calif. (B-Hvy)

Anderson, O. E., 1075 N. 10th St., Box 251, San Jose, Calif. (B)

Arras, Adam, & Son, 855 Treat Ave., San Francisco 10, Calif. (B)

B. & R. Constr. Co., 110 Market St., San Francisco 11, Calif. (B)

Bakers Beach Bldrs., 112 Market St., San Francisco 11, Calif. (B)

Bardell, Robt., 2733 Linden St., Oakland 12, Calif. (B)

Barnes, Jos. L., Constr. Co., 750 Folsom St., San Francisco 7, Calif. (B)

Barrett & Hilp, 918 Harrison St., San Francisco 7, Calif. (B-Hvy)

Beckett & Federighi, 1441 Franklin St., Oakland 12, Calif. (B-Hvy)

Bettancourt, Jos., 1015 San Mateo Ave., San Bruno, Calif. (B)

Bingham Constr. Co., 6329 Eastern Ave., Sacramento, Calif. (B)

Bryant, J. A., 1806 Capitol St., Vallejo, Calif. (B)

Cahill Bros., Inc., 206 Sansome St., San Francisco 4, Calif. (B-Hvy)

Campbell Constr. Co., P. O. Box 390, Sacramento 2, Calif. (B-Hvy)

Carlen Constr. Co., Monadnock Bldg., 681 Market St., San Francisco 5, Calif. (B)

Carrico & Gautier, 365 Ocean Ave., San Francisco 12, Calif. (B-Hvy)

Carroll, A. C., 130 College Ave., Modesto, Calif. (B)

Carter, Geo. W., Co., 1721 W. Olympic Blvd., Los Angeles 15, Calif. (B)

Casey & Case Foundation Co., 1337 2d St., Berkeley 10, Calif. (B-Hvy)

Central California Constr. Co., 75 Elmira St., San Francisco 24, Calif. (B-Hvy)

Christensen & Lyons, 3454 Harlan St., Oakland 8, Calif. (B-Hvy)

Clinton Constr. Co., 923 Folsom St., San Francisco 7, Calif. (B-Hvy)

Concrete Conduit Co., 899 S. La Cadena Ave., P. O. Box 31, Colton, Calif. (Hvy)

Continental Constr. Co., Inc., 4671 24th St. Rd., P. O. Box 2551, Sacramento, Calif. (B)

Dalev, Morris, Rm. 211, 1350 Howard Ave., Burlingame, Calif. (B)

De Luca & Son, 1745 Filbert St., San Francisco 23, Calif. (B-Hvy)

Dinwiddie Constr. Co., Inc., 210 Crocker Bldg., San Francisco 4, Calif. (B-Hvy)

Donahue, E. J., 355 E. Market St., Salinas, Calif. (B)

Dunn, Louis C., Inc., 681 Market St., San Francisco 5, Calif. (B-Hvy)

Early, Fred J., Jr., Co., Incorporated, 369 Pine St., San Francisco 4, Calif. (B-Hvy)

Ehorn, Liston, 925 Jackson St., P. O. Box 328, Red Bluff, Calif. (B)

Ellingson, Thos., 2896 16th St., San Francisco 3, Calif. (B)

Emco of San Francisco, 1020 Harrison St., San Francisco 3, Calif. (B)

Engineers, Ltd., 225 Bush St., San Francisco 4, Calif. (B-Hvy)

Erbentraut & Summers, 696 Pennsylvania Ave., San Francisco 7, Calif. (B-Hvy)

Erickson Constr. Co., 1119 E. Bassettlaw Ave., North Sacramento, Calif. (B)

Falasco, Ted, 958 J St., Los Banos, Calif. (B)

Finson & Oddstad, Inc., 6798 Mission St., Daly City, Calif. (B)

Fisher, Alfred P., 300 Montgomery St., San Francisco 4, Calif. (B)

Fitchett, Leslie, & Son, P. O. Box 1495, Merced, Calif. (B)

Fitzmaurice, J. H., 2857 Hannah St., Oakland 8, Calif. (B-Hvy)

Freethy, Elmer J., 1432 Kearny St., El Cerrito, Calif. (B-Hvy)

Geyer, Harold C., 787 Munras Ave., Box 1190, Monterey, Calif. (B-Hvy)

Giusto, B. L., 40 Ringold St., San Francisco 3, Calif. (B)

Goodenough, Wells P., Inc., 49 Wells Ave., Box 120, Palo Alto, Calif. (B-Hvy)

Gould Constr. Co., The, 680 Laurel St., San Carlos, Calif. (B)

Graham & Jensen, P. O. Box 1208, Merced, Calif. (B)

Gresham Constr. Co., P. O. Box 300, Santa Clara, Calif. (B)

Guth & Schmidt, 2821 S St., Sacramento, Calif. (B)

Harlan, B. W., 1616 Tehama St., Redding, Calif. (B)

Harris Constr. Co., Inc., P. O. Box 109, Fresno, Calif. (B)

Harris, J. Robt., Inc., 1008 Alma St., Menlo Park, Calif. (B)

Hathaway, E. A., & Co., 1098 S. 5th St., San Jose 12, Calif. (B)

Hedahl-Martin Co., The, 501 Standish St., Redwood City, Calif. (B)

Herrington, G. S., P. O. Box 708, Auburn, Calif. (B)

Hoegerman, Wm. C., 303 W. Elm St., Lodi, Calif. (B)

Holdener Constr. Co., 2608 R St., Sacramento, Calif. (B)

Hopper Co., 345 Franklin St., San Francisco 2, Calif. (B)

Horstmeyer, Wm., Co., 23 Mars St., San Francisco 14, Calif. (B)

Hubbard & Son, 925 Columbia St., Turlock, Calif. (B)

Indenco, 960 98th Ave., Oakland 3, Calif. (B)

Jacks & Irvine, 620 Market St., San Francisco 4, Calif. (B-Hvy)

Johnson, Drake & Piper, Inc., 9009 San Leandro St., Oakland 3, Calif. (B-Hvy)

Johnson, Joel, & Son, 1614 Church St., San Francisco 14, Calif. (B)

Kelley & Peletz, 545 Francisco St., San Francisco 11, Calif. (B)

King, M. J., Inc., 231 Franklin St., San Francisco 2, Calif. (B)

Larsen, Ira H., Co., 64 S. Park, San Francisco 7, Calif. (B)

Larsen & Larsen, Inc., 2455 Mason St., San Francisco 11, Calif. (B)

Lawrence Constr. Co., 3020 V St., Sacramento, Calif. (B)

Lena, Nat, 1174 19th St., Oakland 7, Calif. (B-Hvy)

Lewis, Nelson T., 723 C St., Hayward, Calif. (B)

Lewis, R. C., Constr., Inc., 1815 Telegraph Ave., Oakland 12, Calif. (B-Hvy)

Litchfield Constr. Co., 721 Francisco Blvd., San Rafael, Calif. (B)

Little, Matthew A., 1 Grand View Ave., San Francisco 14, Calif. (B)

Lynn, Willis F., 1037 Ashmont, Oakland 10, Calif. (B)

Mackey, Edwin J., 720 Howe Ave., Sacramento 16, Calif. (B)

Markwart, Howard S., 4801 24th Street R.L., Sacramento, Calif. (B)

McCarthy, Robt., Co., 1050 Kirkham St., San Francisco 22, Calif. (B-Hvy)

McDaniel Constr. Co., P. O. Box 1087, Marysville, Calif. (B)

McGranahan, K. J., 500 Spring St., Santa Cruz, Calif. (B)

McPherson, Joe H., 913 East St., Salinas, Calif. (B)

Merritt, E. Philip, 2 Santa Margarita, San Rafael, Calif. (B)

Meyer, Theo. G., & Sons, 200 Quint St., San Francisco 24, Calif. (B)

Midstate Constr. Co., 427 Bryant St., San Francisco 7, Calif. (B-Hvy)

Mitchell, Harry J., P. O. Box 230, Oroville, Calif. (B)

Modern Bldg. Co., P. O. Box 635, Chico, Calif. (B)

Monson Bros., 475 6th St., San Francisco 3, Calif. (B-Hvy)

Moore & Roberts, Inc., 693 Mission St., San Francisco 5, Calif. (B-Hvy)

Morton, Jas. P., Constr. Co., 33 Clay St., Placerville, Calif. (B)

Nicholson, D. W., Corp., 1701 San Leandro Blvd., San Leandro, Calif. (B-Hvy)

Nicholson, W. J., 981 Fremont St., Santa Clara, Calif. (B)

Norlie Constr. Co., P. O. Box 716, 2209 Park Ave., Chico, Calif. (B)

Odman, Arthur, P. O. Box 147, Fair Oaks, Calif. (B)

Olsen, Walter L., 125 Brookwood Ave., Santa Rosa, Calif. (B)

Otto, C. A., 717 10th St., Marysville, Calif. (B)

Overaa, C., & Co., Inc., 520 16th St., Richmond, Calif. (B)

Pacific Coast Bldrs., 2530 18th St., San Francisco 10, Calif. (B)

Pacific Co., The, 801 Cedar St., Berkeley, Calif. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

Parker, Steffens & Pearce, 135 S. Park, San Francisco 7, Calif. (B-Hvy)

Payne Constr. Co., Inc., 876 Harrison St., San Francisco 7, Calif. (B)

Payne, Frank A., & Son, 2600 Virginia St., Berkeley 9, Calif. (B)

Peterson, C. Norman, Constr., 2832 9th St., Berkeley 2, Calif. (B)

Peterson Constr. Co., P. O. Box 624, Los Altos, Calif. (B)

Phillips, C. S., 139-A Redwood Hwy., No., Petaluma, Calif. (B)

Pike & Hill, Carey Bros. & Bailey, P. O. Box 569, San Rafael, Calif. (B)

Prichard, Thos. J., Jr., 1606 Bremer Ave., Fresno, Calif. (B)

Reese, Morrison W., 1262 Minnesota Ave., San Jose 25, Calif. (B)

Robertson, H. W., Inc., 2917 T St., Sacramento 16, Calif. (B-Hvy)

Rosewall, T. H., 544 Main St., Watsonville, Calif. (B)

Rousseau, Oliver M., Co., 110 Sutter St., San Francisco 4, Calif. (B)

Sartorio, Peter, 262 Clementina St., San Francisco 3, Calif. (B)

Schell, Fred W., 41 Sutter St., San Francisco 4, Calif. (B)

Shedd, Wm. S., 808 Forbes Ave., Yuba City, Calif. (B)

Sjoberg, N. H., & Son, 5604 E. 16th St., Oakland 3, Calif. (B)

Standard Bldg. Co., 2222 19th Ave., San Francisco 16, Calif. (B)

Starrett Brothers and Eken, Incorporated, 131 Font Blvd., San Francisco 27, Calif. (B-Hvy)

Stendell, Elvin C., 26th & Kansas Sts., San Francisco 10, Calif. (B)

Stevenson Pacific-Henderson, 1079 Chestnut, P. O. Box 1042, Redwood City, Calif. (B)

Stockholm, Chas., & Sons, 351 California St., San Francisco 4, Calif. (B)

Swenson, Carl N., Co., Inc., 1095 Stockton Ave., P. O. Box 558, San Jose 4, Calif. (B-Hvy)

Swinerton & Walberg Co., 225 Bush St., San Francisco 4, Calif. (B-H)

Tait, W. C., 2300 Mason St., San Francisco 11, Calif. (B-Hvy)

Thompson, Donald, Rt. 5, Box 2270, Modesto, Calif. (B)

Todd, R. R., 915 Beaver St., Santa Rosa, Calif. (B)

Tombleson & Hurk, Inc., P. O. Box 1388, Salinas, Calif. (B)

Van Bokkelen-Cole Co., 955 W. Grand Ave., Oakland, Calif. (B)

Waterbury & Chapek, 605 Fremont Way, Sacramento, Calif. (B)

Webb, Del E., Constr. Co., 5101 San Fernando Rd., W., Los Angeles 39, Calif. (B-Hvy)

White, Howard J., Inc., 44 Encina Ave., Palo Alto, Calif. (B)

Williams & Burrows, Inc., 10 California Dr., Burlingame, Calif. (B-Hvy)

Wisner & Miller, 730 N. California St., Lodi, Calif. (B)

(b) NORTHERN CALIFORNIA
CHAPTER

President—Harold O. Parish, Parish Bros., P.O. Box 6, Benicia, Calif.
Secretary-Manager—Winfield H. Arata, 850 Battery St., San Francisco 11, Calif.

Telephone: Yukon 6-5969

Ace Excavators, 1020 44th Ave., Oakland 1, Calif. (H-Hvy)

Alves, Eugene G., P. O. Box 950, Pittsburg, Calif. (H-Hvy)

Amaral, M., 512 Baker St., Petaluma, Calif. (H-Hvy)

Anson-Smith Constr. Co., 326 Eye St., Marysville, Calif. (H-Hvy)

Archibald, F. R., 718 Douglas Ave., Oakland 3, Calif. (Hvy)

Archibald, J. O., 929 Shasta St., Redwood City, Calif. (H)

Aris-Knapp Co., 961 41st St., Oakland 8, Calif. (H-Hvy)

Armstrong, J. R., 400 Central Ave., El Cerrito, Calif. (H-Hvy)

Associated Engrs., 3606 El Camino Real, Palo Alto, Calif. (H-Hvy)

Associated Pipeline Welders, Inc., P. O. Box 563, Colma 25, Calif. (Hvy)

Asta Constr. Co., P. O. Box 758, Rio Vista, Calif. (Hvy)

Atkinson Bros., Inc., 604 N. Genevieve Lane, San Jose, Calif. (B-Hvy)

Atkinson, Guy F., Co., 10 W. Orange Ave., P. O. Box 593, South San Francisco, Calif. (H-Hvy)

Augusta, Geo., 594 El Camino North, P. O. Box 1545, Salinas, Calif. (H-Hvy)

Bailey, Jay, Constr. Co., P. O. Box 127, Woodland, Calif. (B-Hvy)

Baldwin, Straub Corp., 26 Francisco Blvd., San Rafael, Calif. (B-H-Hvy)

Ball, N. M., Sons, 685 Delaware St., Berkeley 10, Calif. (H-Hvy)

Ball & Simpson, 685 Delaware St., Berkeley 10, Calif. (H-Hvy)

Ballinger, W. R., & Son, 355 Barneveld Ave., San Francisco 24, Calif. (Hvy)

Barbattini, E., 2251 Quesada Ave., San Francisco 24, Calif. (H-Hvy)

Bateman, J. C., 650 Stockton Ave., San Jose 11, Calif. (H-Hvy)

Bates & Rogers Construction Corporation, Rm. 1122, 209 Post St., San Francisco 8, Calif. (Hvy-RR)

Baun Constr. Co., 324 Princeton, Fresno, Calif. (H-Hvy)

Bechtel Corp., 220 Bush St., San Francisco 4, Calif. (B-H-Hvy)

Beerman & Jones, Sonora, Calif. (H)

Biasotti, Louis, & Son, 40 W. Clay St., Stockton 36, Calif. (H-Hvy)

Bigge Drayage Co., 2387 Campbell St., Oakland 7, Calif. (Hvy)

Bishop, E. B., Orland, Calif. (H-Hvy)

Blakeslee-Spierung Co., P. O. Box 447, Sausalito, Calif. (B-Hvy)

Blomquist Oil Service, Inc., P. O. Box 431, Redwood City, Calif. (H)

Bobo, Fabian, Rt. 1, Box 30, San Rafael, Calif. (H)

Bormolini, Louis, & Son, P. O. Box 101, Novato, Calif. (B-H-Hvy)

Bragato Paving Co., 1650 Old County Rd., Belmont, Calif. (H)

Breen, J. P., P. O. Box 183, Sacramento 1, Calif. (H-Hvy)

Brennan, J. P., Zeis Bldg., Redding, Calif. (B-Hvy)

Bressi & Bevanda Constrs., Inc., P. O. Box 439, North Hollywood, Calif. (Hvy-RR)

Brighton Sand & Gravel Co., P. O. Box 2604, Sacramento 10, Calif. (H-Hvy)

Brown-Ely Co., 7360 Schmidt Lane, P. O. Box 156, El Cerrito, Contra Costa County, Calif. (H-Hvy)

Brown, M. W., Box 222, Redding, Calif. (H-Hvy)

Burman, John, & Sons, 2750 Harrison Ave., Eureka, Calif. (H-Hvy)

Burnett Constr. Co., 159 W. Glenn St., P. O. Box 487, Coalinga, Calif. (Hvy)

Butte Creek Rock Co., P. O. Box 512, Chico, Calif. (H-Hvy)

California Steel Prods. Co., Ind. Constr. & Maint. Div., Barrett Ave. & "A" St., Richmond, Calif. (Hvy)

Callahan Constr. Co., Rt. 1, Box 416A, Colma, Calif. (H-Hvy)

Campbell Constr. & Equip. Co., 465 10th St., San Francisco 3, Calif. (H-Hvy-RR)

Cannon Constr. Co., P. O. Box 1947, Stockton, Calif. (H-Hvy)

Capital Co., 1 Powell St., San Francisco 2, Calif. (B-Hvy)

Capps, Gordon L., P. O. Box 583, Stockton, Calif. (H-Hvy)

Cardwell, Leo, Constr. Co., 530 Pacific Ave., Santa Cruz, Calif. (H-Hvy)

Castro, Earl W., Rt. 2, Box 202, Martinez, Calif. (H-Hvy)

Castro Valley Rock Co., 20450 John St., Hayward, Calif. (H-Hvy)

Chevreux, Joe, P. O. Box 65, Sta. A, Auburn, Calif. (H-Hvy)

Clark, L. C., 422 Park Ave., Visalia, Calif. (H-Hvy)

Clements & Co., P. O. Box 277, 775 Jackson St., Hayward, Calif. (H)

Cleverdon Co., Inc., Rt. 1, Box 1, Lafayette, Calif. (H-Hvy)

Clifford, R. G., 2950 Claremont Ave., Berkeley, Calif. (H-Hvy)

Close Bldg. Supply, 721 C St., Hayward, Calif. (H)

Clough, L. M., Co., 996 66th Ave., Oakland 3, Calif. (H-Hvy)

Coast Pipeline Contrs., Commercial & Old County Rd., Belmont, Calif. (H-Hvy)

Condict Co., 806 Hearst Ave., Berkeley 2, Calif. (B-Hvy)

Conduit Constr. Co., 3510 Peralta St., Oakland 8, Calif. (Hvy)

Conner, Harvey E., P. O. Box 1012, Redwood City, Calif. (Hvy)

Conner, J. L., Jr., Box 835, Eureka, Calif. (H)

Corbett, Frank D., 99 N. 17th St., Sacramento 14, Calif. (B-Hvy)

Crocco & Hanson, 1010 Tennessee St., Vallejo, Calif. (H-Hvy)

Cunningham, Chas. L., Co., 334 S. Yosemite Ave., P. O. Drawer E, Oakdale, Calif. (B-Hvy)

Cypher, C. L., 2078 Coombsville Rd., Napa, Calif. (H-Hvy)

CALIFORNIA—Continued

- Dahms, O. R., Constr. Co., Rt. 7, Box 1143, Sacramento, Calif. (Hvy)
- daRoza Ribal, Inc., % Gen. Del., Dutch Flat, Calif. (B-H)
- Darrrough, W. H. & Sons, P. O. Box 392, Live Oak Hwy., Yuba City, Calif. (H-Hvy)
- Delphia, John, P. O. Box 607, 14 N. 3d St., Patterson, Calif. (H-Hvy)
- Delta Constr. Co., P. O. Box 457, Rio Vista, Calif. (H-Hvy)
- Douglass & Woodhouse, P. O. Box 908, Redwood City, Calif. (H)
- Downer Co., Inc., 305 E. Weber St., Stockton 11, Calif. (H-Hvy)
- Draper, Archie, P. O. Box 266, 738 Main St., Red Bluff, Calif. (H-Hvy)
- Dreher & Beaulieu, 235 S. 18th St., Richmond, Calif. (H-Hvy)
- Duncanson-Harrelson Co., The, 530 W. Cutting Blvd., Richmond, Calif. (Hvy)
- Eaton & Smith, 1215 Michigan St., San Francisco 7, Calif. (H-Hvy-RR)
- Edwards, Jas. J., 904 Elm St., San Carlos, Calif. (Hvy)
- Ehrhart & Arthur, Inc., 417 S. Hill St., Rm. 920, Los Angeles 13, Calif. (B-Hvy)
- Eichley Corp., P. O. Box 336, Mountain View, Calif. (Hvy)
- Ely, I. J., Co., 665 Butterfield Rd., San Anselmo, Calif. (H)
- Emco of San Francisco, 1020 Harrison St., San Francisco 3, Calif. (B-H-Hvy)
- Engineered Fixture Systems, P. O. Box 203, Mountain View, Calif. (B-Hvy)
- Engineers Ltd. Pipeline Co., 2128 San Pablo Ave., El Cerrito, Calif. (Hvy)
- Erickson, Al. & Co., P. O. Box 384, Napa, Calif. (H-Hvy)
- Erickson, Phillips & Weisberg, 3341 Telegraph Ave., Oakland 9, Calif. (H-Hvy)
- Fairfield Trucking Co., Box 568, Fairfield, Calif. (H-Hvy)
- Farish, Robt. A., 50 Hawthorne St., San Francisco 5, Calif. (H)
- Fay Improvement Co., 101 Carolina St., San Francisco 3, Calif. (H-Hvy)
- Fazio, Walter E., 981 Coronado Blvd., Sacramento, Calif. (B-Hvy)
- Ferguson Bros., 8923 San Leandro St., Oakland 3, Calif. (Hvy)
- Fogelberg, O. A., Mt. Diablo Blvd. & Elizabeth St., Lafayette 2, Calif. (Hvy)
- Forde, E. A., Co., 3 Bank St., P. O. Box 306, San Anselmo, Calif. (H)
- Fortuna Constr. Co., P. O. Box 454, Fortuna, Calif. (B-Hvy)
- Foster & McHarg, P. O. Box 1589, Marysville, Calif. (H-Hvy)
- France, Geo. E., Inc., P. O. Box 831, Visalia, Calif. (H)
- Frances Constr. Co., 1929 Sonoma Ave., Santa Rosa, Calif. (B-Hvy)
- Fredericksen & Kasler, 212 13th St., Sacramento, Calif. (H-Hvy)
- Fredrickson Bros., 1259 65th St., Emeryville 8, Calif. (B-H-Hvy)
- Fredrickson & Watson Constr. Co., 873 81st Ave., Oakland 3, Calif. (B-H-Hvy)
- French, Geo., Jr., Box 307, 2101 E. Weber St., Stockton, Calif. (H-Hvy-RR)
- Gallagher & Burk, Inc., 344 High St., Oakland, Calif. (H-RR)
- Gerwick, Ben C., Inc., 112 Market St., San Francisco 11, Calif. (H-Hvy)
- Gist, John C., 1020 46th St., Sacramento 16, Calif. (Hvy)
- Granite Constr. Co., Box 900, Watsonville, Calif. (B-H-Hvy-RR)
- Haas & Haynie, 275 Pine St., San Francisco, Calif. (B-H-Hvy-RR)
- Harmeling, Carl C., 1710 Mt. Diablo, Stockton, Calif. (H-Hvy)
- Harms Bros., 5261 Stockton Blvd., Sacramento 17, Calif. (H-Hvy)
- Harney, Chas. L., Inc., 575 Berry St., San Francisco 7, Calif. (H-Hvy)
- Harris, J. Henry, 2657 9th St., Berkeley 2, Calif. (H)
- Hasler, M. H., Constr. Co., & D & H Constr. Co., P. O. Box 1-A, Folsom, Calif. (H-Hvy)
- Helwig Constr. Co., 167 Morris Ave., Sebastopol, Calif. (B-H-Hvy)
- Huetting, Schromm & Bennett, P. O. Box 798, 300 Bryant St., Palo Alto, Calif. (H-Hvy)
- Huntington Bros., P. O. Box 474, Napa, Calif. (H-Hvy)
- Immel, Lee J., 3030 San Pablo Ave., San Pablo, Calif. (H-Hvy)
- Independent Constr. Co., 741 50th Ave., Oakland 1, Calif. (B-H-Hvy-RR)
- Industrial Engrs. & Contrs., Inc., 711 Middle Waterway, Tacoma, Wash. (B-Hvy)
- Jenkins, M. A., & R. E. Hertel, 4521 15th Ave., Sacramento 17, Calif. (H-Hvy)
- Johnson, A. C., & Sons, 25 6th St., Eureka, Calif. (B-Hvy)
- Johnson & Nelson, 718A San Anselmo Ave., San Anselmo, Calif. (H-Hvy)
- Jones, Lew, Constr. Co., 1535 S. 10th St., San Jose, Calif. (H-Hvy)
- Jones, O. C., & Sons, 1520 4th St., Berkeley 10, Calif. (B-H-Hvy)
- Jones, W. B., Palo Cedro, Calif. (H-Hvy)
- Jones, Winton, P. O. Box 34, 1770 Riviera St., Walnut Creek, Calif. (H-Hvy)
- Justice-Dunn Co., 1260 59th St., Oakland 8, Calif. (H)
- Kaiser Engrs., Div. of Henry J. Kaiser Co., 1924 Broadway, Oakland 12, Calif. (Hvy)
- Keeble, Edw., Rt. 4, Box 64, San Jose, Calif. (H-Hvy)
- Kelley Bros., 810 San Ramon, Sacramento, Calif. (H-Hvy)
- Kenworthy, C. V., 2037 E. Harding Way, Stockton, Calif. (H-Hvy)
- Ke-Ston & Muny, 3477 Liberty Blvd., South Gate, Calif. (H-Hvy)
- Kevy Constr., Inc., 655 Peralta Ave., San Leandro, Calif. (H-Hvy)
- Kiewit, Peter, Sons' Co., 422 Post St., San Francisco 2, Calif. (Hvy)
- Lane, E. V., Co., 3101 3d St., P. O. Box 417, Palo Alto, Calif. (H-Hvy)
- Lauritzen, H. F., P. O. Box 470, Pittsburg, Calif. (Hvy)
- Lee Constr. Co., 1575 Lake Chabot Rd., San Leandro, Calif. (H-Hvy)
- Lentz Constr. Co., 2416 Sutterville Rd., Sacramento 17, Calif. (H-Hvy)
- Lord & Bishop, P. O. Box 812, Sacramento 4, Calif. (H-Hvy-RR)
- Los Gatos Constr. Co., P. O. Box 111, Los Gatos, Calif. (H-Hvy)
- Lowell, E. E., 1331 Virginia St., Vallejo, Calif. (H-Hvy)
- Lowrie Paving Co., 1755 Evans Ave., San Francisco 24, Calif. (H)
- Lyles, W. M., Co., P. O. Box 495, Avenal, Calif. (Hvy)
- Lynch, M. J., 2251 Revere Ave., San Francisco 24, Calif. (H-Hvy)
- M. G. M. Constr. Co., P. O. Box 1056, Market St., Concord, Calif. (Hvy)
- M. J. B. Constr. Co., 322 Elks Bldg., Stockton 1, Calif. (H-Hvy)
- M & K Corp., 200 Financial Center Bldg., San Francisco 4, Calif. (B-H-Hvy-RR)
- Macal Improvement Co., Inc., Rt. 1, Box 99, Wilbur Ave., Antioch, Calif. (H-Hvy)
- MacClosky, Chas., Co., 112 Market St., San Francisco 11, Calif. (B-Hvy)
- Macco Constr. Co., Inc., 14409 Paramount Blvd., Paramount, Calif. (H-Hvy)
- MacDonald, Young & Nelson, Inc., 351 California St., San Francisco 4, Calif. (B-H-Hvy-RR)
- MacIsaac, Menke & Roach, Inc., 3440 E. 14th St., Los Angeles 23, Calif. (H-Hvy)
- Mafitino, M., & Son, Inc., P. O. Box 750, Pittsburg, Calif. (H-Hvy)
- Marks, Frank B., Jr., P. O. Box 668, Newman, Calif. (H-Hvy)
- Marks, Howard E., 203 Berverdor St., Tracy, Calif. (H-Hvy)
- Marshall, S. A., Tacna, Ariz. (H-Hvy)
- Martin Bros., Inc., P. O. Box 5, Concord, Calif. (H-Hvy)
- Maurer, Fred J., & Son, 125 W. 5th St., Eureka, Calif. (B-Hvy)
- McAnulty, J. H., 382 E. 10th Ave., Chico, Calif. (B-Hvy)
- McCammon-Wunderlich Co., P. O. Box 1023, Palo Alto, Calif. (H-Hvy)
- McCook, A. J., Eastshore Hwy. & Cedar St., Berkeley 2, Calif. (H)
- McCook, John H., Inc., 1501 Eastshore Hwy. at Jones St., Berkeley, Calif. (H-Hvy)
- McDougall, Natt, Co., 824 Pittcock Bl., Portland 5, Oreg. (B-H-Hvy-RR)
- McElderry, B. S., 2355 Virginia St., Berkeley 9, Calif. (Hvy)
- McFadden, Jos., & Son, Bayshore & San Antonio Rd., Palo Alto, Calif. (H)
- McGillivray Constr. Co., P. O. Box 873, Sacramento, Calif. (H-Hvy)
- McGowan, M. B., Inc., 625 Market St., San Francisco 5, Calif. (Hvy)
- McGuire & Hester, 796 66th Ave., Oakland 3, Calif. (Hvy)
- Mercer-Fraser Co., 2d & Commercial Sts., Eureka, Calif. (B-H-Hvy-RR)
- Miles & Son, Inc., P. O. Box 859, Hwy. 99, No., Merced, Calif. (H)
- Miller, A. L., 1715 7th St., Sacramento, Calif. (H-Hvy)
- Miller & Henkel, 930 Monte, Fresno, Calif. (H-Hvy)
- Mincey Constr. Co., 5277 Folsom Blvd., Sacramento 19, Calif. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

- Montgomery, T. M., P. O. Box 311, 985 Lincoln Way, Auburn, Calif. (H)
- Moore, Cecil L., P. O. Box 166, San Leandro, Calif. (H-Hvy)
- Moore, P. J., & Son, P. O. Box 515, Tracy, Calif. (H-Hvy)
- Morgan Constr. Co., P. O. Box 904, Redding, Calif. (H-Hvy)
- Morrison-Knudsen Co., Inc., 74 New Montgomery St., San Francisco 5, Calif. (B-H-Hvy)
- Munn & Perkins, P. O. Box 1092, 801 S. Old 99 Hwy., Modesto, Calif. (H-Hvy)
- Murphy, Martin, Rt. 2, Box 894, Walnut Creek, Calif. (Hvy)
- Murphy, Michael, Jr., 308 Upper Terr., San Francisco, Calif. (H-Hvy)
- Nomellini Constr. Co., P. O. Box 1177, Stockton, Calif. (B-Hvy)
- Normac, Inc., P. O. Box 470, Huntington Park, Calif. (B-Hvy)
- O'Connor Bros., P. O. Box 630, 750 Madison St., Red Bluff, Calif. (B-H-Hvy)
- O'Connor, J. D., Constr. Co., Inc., 211 Adrian Way, San Rafael, Calif. (B-H-Hvy)
- O'Hair, W. H., Co., 11th & Main Sts., P. O. Box 331, Colusa, Calif. (H-Hvy)
- Olympian Dredging Co., 525 Market St., San Francisco 5, Calif. (H)
- Pacific Bridge Co., 333 Kearny St., San Francisco 8, Calif. (H-Hvy-RR)
- Pacific Pavements Co., Ltd., 85 Barstow St., San Francisco 7, Calif. (H-Hvy)
- Page, T. M., Corp., 145 W. Duarte Rd., Monrovia, Calif. (H-Hvy)
- Parish Bros., P. O. Box 6, Benicia, Calif. (H-Hvy)
- Parker, H. Earl, Inc., 531 12th St., Marysville, Calif. (H-Hvy)
- Paroline, John B., E. Dunne Ave., Morgan Hill, Calif. (H-Hvy)
- Patterson, Geo. R., P. O. Box 2004, Stockton, Calif. (H-Hvy)
- Peira, U., & Son, 292 Ocean Ave., San Francisco 12, Calif. (H-Hvy)
- Peters, A. J., & Son, P. O. Box 632, 534 Stockton Ave., San Jose, Calif. (Hvy)
- Peterson, E. H., & Son, 5691 San Pablo Dam Rd., Richmond, Calif. (B-Hvy)
- Piazza, Leo F., Paving Co., Rt. 1, Box 800, Downer Ave. near Almaden Rd., San Jose, Calif. (H)
- Pine Flat Contrs., P. O. Box 277, Sanger, Calif. (Hvy)
- Piombo Constr. Co., 1571 Turk St., San Francisco 15, Calif. (H-Hvy)
- Pollock, Geo., Co., P. O. Box 903, Sacramento 5, Calif. (H-Hvy-RR)
- Pomeroy, J. H., & Co., Inc., 333 Montgomery St., San Francisco 4, Calif. (H-Hvy)
- Radtko, Wm., & Son, 40 Martin St., Gilroy, Calif. (B-Hvy)
- Railing, W. C., Woodland, Calif. (H)
- Raisch, A. G., Co., P. O. Box 458, San Rafael, Calif. (H-Hvy)
- Raisch, A. J., Paving Co., 900 W. San Carlos St., San Jose 26, Calif. (H-Hvy)
- Ransome Co., 4030 Hollis St., Emeryville 8, Calif. (H-Hvy)
- Rapp, Robt. M., Co., 705 Bennett Ave., Santa Rosa, Calif. (Hvy)
- Rapp, Wm. D., 705 Bennett Ave., Santa Rosa, Calif. (B-Hvy)
- Reeves, J. R., P. O. Box 1072, Sacramento 5, Calif. (H)
- Reid, A. R., Co., 2600 Oakdale Ave., San Francisco 24, Calif. (H-Hvy)
- Renz, Geo. C., Box 6, Hecker Pass Hwy., Gilroy, Calif. (B-Hvy)
- Rice Bros., Inc., 8th & Yuba St., P. O. Box 1489, Marysville, Calif. (H-Hvy)
- Richards, Gene, Inc., 165 N. H St., Fresno, Calif. (H-Hvy)
- Robertson, Alex. Co., P. O. Box 138, Walnut Creek, Calif. (H-Hvy)
- Robertson, W. E., Co., 4015 W. Jefferson Blvd., Los Angeles 16, Calif. (B-Hvy)
- Rolandi, F. S., Jr., Inc., 617 Montgomery St., San Francisco 11, Calif. (B-Hvy)
- Rothschild, Raffin & Weirick, 274 Brannan St., San Francisco, Calif. (B-Hvy)
- Rousseau, Oliver, Co., 110 Sutter St., San Francisco 4, Calif. (B-Hvy)
- Ruby, H. W., 2851 Northrup Ave., Sacramento, Calif. (H-Hvy)
- Ruddy, M. J., & Son, 922 "J" St., Modesto, Calif. (H-Hvy)
- S. A. E. Co., P. O. Box 968, Redwood City, Calif. (H-Hvy)
- S & Q Constr. Co., 248 9th St., San Francisco, Calif. (B-H-Hvy)
- Schader, A. D., 164 Spear St., San Francisco 5, Calif. (H-Hvy-RR)
- Sinnock, Pomeroy, 1770 N. Hunter St., Stockton, Calif. (H-Hvy)
- Siri, Arthur B., Inc., 1356 Cleveland Ave., Santa Rosa, Calif. (H)
- Slinen Constr. Co., P. O. Box 551, Napa, Calif. (H-Hvy)
- Smith, Frank W., Constr. Co., Box 726, San Mateo, Calif. (H-Hvy)
- Smith, Harold, 1725 Main St., St. Helena, Calif. (H-Hvy)
- Smith, L. C., 1st & Railroad, San Mateo, Calif. (H-Hvy)
- Smith, Wm. A., Contr. Co. of California, P. O. Box 1506, Oakland, Calif. (Hvy-RR)
- Solomon, E. J., P. O. Box 576, San Andreas, Calif. (B-Hvy)
- Sondgroth Bros., 318 Sierra Vista Ave., Mountain View, Calif. (H-Hvy)
- Sorensen, Peter, 927 Arguello St., Redwood City, Calif. (B-Hvy)
- Spears Constr. Co., P. O. Box 1124, Modesto, Calif. (B-Hvy)
- Stacy, Geo. R., P. O. Box 457, Tulalake, Calif. (H-Hvy)
- Standard Materials Co., 1411 9th St., Modesto, Calif. (H)
- Standard Structures, Inc., 28 Francisco Blvd., San Rafael, Calif. (H-Hvy)
- Standard Water & Sewage Prods., Inc., Rt. 7, Box 1143, Sacramento, Calif. (Hvy)
- Stephens Trucking Co., 39 E. Pine St., Stockton, Calif. (H-Hvy)
- Stewart & Nuss, Inc., 410 Thorne Ave., P. O. Box 886, Fresno, Calif. (H-Hvy)
- Stockton Constr. Co., Inc., P. O. Box 2087, 639 W. Clay St., Stockton, Calif. (H-Hvy)
- Stolte, Inc., 8451 San Leandro St., Oakland 3, Calif. (B)
- Stone & Webster Engineering Corp., 235 Montgomery St., San Francisco 4, Calif. (B-Hvy)
- Strizek, Jerre, 2418 El Paseo Lane, Town & Country Village, Sacramento 15, Calif. (B-Hvy)
- Syar, C. M., P. O. Box 1431, Vallejo, Calif. (H-Hvy)
- Teichert, A., & Son, Inc., 1931 Stockton Blvd., P. O. Box 1113, Sacramento 5, Calif. (H-Hvy-RR)
- Thomas, B. Miles, Co., 436 Pacheco St., San Francisco 16, Calif. (H-Hvy)
- Thomas Constr. Co., 4929 Hedges Ave., Fresno 2, Calif. (Hvy)
- Thomas, G. W., Drayage & Rigging Co., Inc., 114 14th St., San Francisco 3, Calif. (Hvy)
- Thomas Rigging Co., 1505 62d St., Emeryville 8, Calif. (Hvy)
- Till, Archie L., P. O. Box 346, Yuba City, Calif. (H-Hvy)
- Tobin, Edwin J., Co., 1000 Carleton St., Berkeley 2, Calif. (Hvy)
- Transocean Engr. Corp., 15890 Hesperian Blvd., San Lorenzo, Calif. (Hvy)
- Triangle Constr. Co., 2440 Sutterville Rd., Sacramento, Calif. (B-Hvy)
- Tuttle, C. B., Co., 1389 Gladys Ave., Long Beach 4, Calif. (Hvy)
- Tyson & Watters, Inc., P. O. Box 1914, Sacramento, Calif. (B-Hvy)
- Underground Constr. Co., 75th Ave. at San Leandro Blvd., Oakland 3, Calif. (Hvy)
- United Concrete Pipe Corp., Box 425, Baldwin Park, Calif. (H-Hvy)
- Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif. (B-H-Hvy-RR)
- Valley Paving & Constr. Co., Inc., P. O. Box 6, Pismo Beach, Calif. (H-Hvy)
- Van Valkenburgh, N. P., & Co., P. O. Box 1192, Sacramento, Calif. (B-H-Hvy)
- Vega Engr. & Grading Co., 1214 4th St., Berkeley 10, Calif. (H-Hvy)
- Vicini, Joe, P. O. Box 206, Placerville, Calif. (H-Hvy)
- Vinnell Co., Inc., 1145 Westminster Ave., Alhambra, Calif. (B-H-Hvy)
- Volpa Bros., 233 Nielsen Ave., Fresno, Calif. (H-Hvy)
- Walsh Construction Company, 785 Market St., San Francisco 3, Calif. (Hvy)
- Watkins, Ted, P. O. Box 727, Linden, Calif. (H-Hvy)
- Watson, R. A., Co., P. O. Box 747, 5528 Vineland Ave., North Hollywood, Calif. (H-Hvy)
- Westbrook & Pope, 2331 Fair Oaks Ave., Sacramento 16, Calif. (H-Hvy-RR)
- Western Contracting Corporation, P. O. Box 1071, Los Banos, Calif. (H-Hvy)
- Western Crane Service, 1230 6th St., Berkeley 10, Calif. (H-Hvy)
- Wood, Claude C., Co., Box 599, Lodi, Calif. (B-H-Hvy-RR)
- Wood, Clyde W., & Sons, Inc., 6900 Tujunga Ave., P. O. Box 620, North Hollywood, Calif. (B-H-Hvy)

A.G.C. DIRECTORY

CALIFORNIA—Continued

Young, W. M., 270 Whittier Ave., Tracy, Calif. (H-Hvy)
 Youngs, Claude L., Rt. 6, Box 2150, Antelope Rd., Sacramento, Calif. (H-Hvy)

(c) SAN DIEGO CHAPTER

President—C. A. Larsen, 2057 Kurtz St., San Diego 1, Calif.
 Manager—M. A. Mathias, 455-6 Spreckels Bldg., San Diego 1, Calif.
 Telephone: Franklin 1321

Anderson, L. C., Co., 3040 Hancock St., San Diego 10, Calif. (B)
 Barber, Walter H., 7309 El Cajon Ave., La Mesa, Calif. (Hvy)
 Butterfield, L. B., 1211 S. 32d St., San Diego 13, Calif. (Hvy)
 Carroll & Foster, 5150 Marlborough Dr., San Diego 16, Calif. (H-Hvy)
 Chambers Steel Co., 2077 Kurtz St., San Diego 1, Calif. (B-Hvy)
 Cory & Longworth, Inc., 1975 5th Ave., San Diego 1, Calif. (B)
 Curry, I. C., 1701 B St., San Diego 2, Calif. (B)
 Daley Corp., Lock Box 67, N. Park Sta., San Diego 4, Calif. (H-Hvy)
 Dennis, V. R., Constr. Co., P. O. Box F, Hillcrest Sta., San Diego 3, Calif. (H-Hvy)
 Ford, E. Paul, 5050 Market St., San Diego 5, Calif. (H-Hvy)
 Golden, M. H., Constr. Co., 3485 Noell St., San Diego 1, Calif. (B-Hvy)
 Griffith Co., P. O. Box G, Hillcrest Sta., San Diego 3, Calif. (B-H-Hvy)
 Grove, Cecil B., 3216 Island Ave., San Diego 2, Calif. (H)
 Hansen, John, 1489 Island Ave., San Diego 2, Calif. (Hvy)
 Harris, Sim J., Co., 1691 Hancock, San Diego 1, Calif. (H-Hvy)
 Hazard, R. E., Constr. Co., P. O. Box 1951, San Diego 12, Calif. (H-Hvy)
 Hortie, R. J., 2627 Boston Ave., San Diego 13, Calif. (B)
 Kier, W. E., Constr. Co., 461 Spreckels Bldg., San Diego 1, Calif. (B-H-Hvy)
 Larsen, B. O., 1340 E St., San Diego 2, Calif. (B-Hvy)
 Larsen, C. A., 2057 Kurtz St., San Diego 1, Calif. (B)
 Nelson, W. F., Co., 1249 S. 32d St., San Diego 13, Calif. (Hvy)
 Nielsen Constr. Co., P. O. Box 1577, Old San Diego Sta., San Diego 10, Calif. (B-Hvy)
 Pacific Rock & Gravel Co., P. O. Box 778, Arcadia, Calif. (H-Hvy)
 Riha Constr. Co., 4859 El Cajon Blvd., San Diego 15, Calif. (B)
 Stroud-Seabrook, P. O. Box 787, Chula Vista, Calif. (Hvy)
 Tavares Constr. Co., P. O. Box 569, La Jolla, Calif. (B-Hvy)
 Trepte Constr. Co., 2001 Kettner Blvd., San Diego 1, Calif. (B-Hvy)
 Young, F. E., Constr. Co., 2141 Main St., San Diego 13, Calif. (B-Hvy)

(d) SOUTHERN CALIFORNIA CHAPTER

President—R. A. Smith, P. J. Walker Co., 3900 Whiteside Ave., Los Angeles 63, Calif.

Manager—W. D. Shaw, 707 Architects Bldg., 816 W. 5th St., Los Angeles 17, Calif.
 Telephone: Madison 1381

ABC Constr. Co., Inc., 12420 S. Bloomfield Ave., Norwalk, Calif. (Hvy)
 Adair, H. B., Constr. Co., 18037 S. Broadway, P. O. Box 249, Gardena, Calif. (H-Hvy)
 Akmadzich, P. J., Box 8, Sunland, Calif. (H)
 Al-Co Co., 5423 Flemish Village Lane, Los Angeles 27, Calif. (Hvy)
 Aldous & Co., 2006 S. La Cienega Blvd., Los Angeles 34, Calif. (B-Hvy)
 Alliance Constr. Co., 308 Monterey Rd., South Pasadena, Calif. (B)
 American Asphalt Paving Co., 1010 S. Sharnock Ave., Monrovia, Calif. (B-Hvy)
 American Pipe & Constr. Co., Box 3428, Terminal Annex, Los Angeles 54, Calif. (Hvy)
 Anso Constr. Co., Inc., 2725 Atlantic Ave., Long Beach 6, Calif. (B-H-Hvy)
 Artukovich Bros., Inc., 16200 S. Atlantic Ave., Paramount, Calif. (H-Hvy)
 Ashby & Opperman, P. O. Box 127, Bakersfield, Calif. (B)
 Asphalt Paving Materials Co., 2120 Colorado Blvd., Rm. 2, Los Angeles 41, Calif. (H)
 Atkinson, Guy F., Co., P. O. Box 259, Long Beach 1, Calif. (B-H-Hvy)
 Baer, Paul M., & Son, P. O. Box 65, Bell Gardens, Calif. (B)
 Baker, Jack W., 21229 De La Osa, Woodland Hills, Calif. (B-H-Hvy)
 Baker-Mitchell-Thwing Co., P. O. Box 2098, San Bernardino, Calif. (Hvy)
 Ball & Simpson, 685 Delaware St., Berkeley 10, Calif. (H)
 Ball, Stanley, 1101 Westminster Ave., Alhambra, Calif. (H)
 Barnes, Jas. L., Constr. Co., P. O. Box 799, Santa Monica, Calif. (B)
 Barnes, W. M., Co., 727 W. 7th St., Rm. 355, Los Angeles 17, Calif. (B-Hvy)
 Barrett & Hilp, 234 W. 37th Pl., Los Angeles 7, Calif. (B-H-Hvy)
 Barrett, J. S., 1300 Coast Hwy., Newport Beach, Calif. (Hvy)
 Baruch Corp., P. O. Box 11488, Briggs Sta., Los Angeles 48, Calif. (B-Hvy)
 Basich Bros. Constr. Co., 1148 N. San Gabriel Blvd., Garvey, Calif. (H-Hvy)
 Bechtel Corp., 3780 Wilshire Blvd., Los Angeles 5, Calif. (B-H-Hvy)
 Beggs, W. C., 2122 Berkeley Ave., Los Angeles 26, Calif. (B)
 Bent Constr. Co., 5359 Valley Blvd., Los Angeles 32, Calif. (Hvy)
 Beyer & Abrahamson, 315 W. 9th St., Los Angeles 15, Calif. (B)
 Blaw-Knox Constr. Co., P. O. Box 778, Pittsburgh 30, Pa. (B-Hvy)
 Bong, Clifford C., & Co., 123 N. 3d Ave., Arcadia, Calif. (H-Hvy)
 Braun, C. F., & Co., 1000 S. Fremont Ave., Alhambra, Calif. (Hvy)

Bressi & Bevanda Constrs., Inc., P. O. Box 439, North Hollywood, Calif. (H-Hvy)
 Brock, M. J., & Sons, Inc., 2894 Rowena Ave., Los Angeles 39, Calif. (B-Hvy)
 Brown, Chas. T., Co., 1955 6th St., San Fernando, Calif. (H-Hvy)
 Burke & Reynolds Constr. Co., 1227 N. Avalon, P. O. Box 635, Wilmington, Calif. (B)
 Butterfield, C. R., Co., 1401 N. Gaffey St., San Pedro, Calif. (H-Hvy)
 Buttress & McClellan, Inc., 1900 Beverly Blvd., Los Angeles 4, Calif. (B-H-Hvy)
 California Steel & Constr. Co., 3833 E. Medford St., Los Angeles 63, Calif. (B)
 Camillo Bros. Dump Truck Co., 424 Fernando Ct., Glendale 4, Calif. (H-Hvy)
 Cannell, E. W., 14181 S. Halldale Ave., Gardena, Calif. (Hvy)
 Carter, Geo. W., Co., 1721 W. Olympic Blvd., FOY P. O. Box 17155, Los Angeles 17, Calif. (B)
 Case, F. W., Co., 7700 Balboa Blvd., Van Nuys, Calif. (H-Hvy)
 Case, V. D., Co., P. O. Box 515, Wilmington, Calif. (B-Hvy)
 Casey & Case Foundation Co., 7222 E. Slauson Ave., Los Angeles 22, Calif. (B-Hvy)
 Christensen & Lyons Constr. Co., 3478 Liberty Blvd., South Gate, Calif. (B-H-Hvy)
 Christie Co., 23 Santa Clara St., Arcadia, Calif. (B-Hvy)
 Concrete Conduit Co., 899 S. La Cadena Ave., P. O. Box 31, Colton, Calif. (Hvy)
 Connolly-Pacific Co., 1925 W. Water St., Long Beach 2, Calif. (H-Hvy)
 Contracting Engrs. Co., The, 2310½ W. Vernon Ave., Los Angeles 43, Calif. (B-H-Hvy)
 Cook, S. J., & Son, 2013 Placentia Ave., Costa Mesa, Orange County, Calif. (B-H-Hvy)
 Covina Constr. Co., P. O. Box 385, Covina, Calif. (H)
 Cox Bros. Constr. Co., P. O. Drawer C, Stanton, Calif. (H-Hvy)
 Crow, L. A. & R. S., 2226 N. Rosemead Blvd., El Monte, Calif. (H-Hvy)
 Crowell, Wm. C., Co., 170 E. California St., Pasadena 5, Calif. (B)
 Cummings, S. A., 821 W. Rosecrans Ave., Compton, Calif. (H-Hvy)
 Cummins, J. F., 245 E. Olive Ave., Burbank, Calif. (B)
 Curlett Constr. Co., 730 E. 3d St., Long Beach 12, Calif. (B)
 Daum, R. J., Constr. Co., 6803 West Blvd., Inglewood, Calif. (B)
 Davies, John R., & Son, 3312 Long Beach Ave., Los Angeles 58, Calif. (Hvy)
 Davies, Keusder & Brown, 4915 Exposition Blvd., Los Angeles 16, Calif. (B)
 Deane, B. C., & Gunther & Shirley Co., 5536 Sepulveda Blvd., Van Nuys, Calif. (B)
 Denni Corp., 736 N. Avalon Blvd., Wilmington, Calif. (H-Hvy)
 Dimmitt & Taylor, 128 W. Pomona Ave., Monrovia, Calif. (H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

- Dixon, L. E., Co., 409 S. California St., San Gabriel, Calif. (B-H-Hvy)
- Doty Bros., 9936 E. Ramona Ave., Bellflower, Calif. (Hvy)
- Driver, C. W., Inc., 3416½ W. 1st St., Los Angeles 4, Calif. (B)
- Dunn, Louis C., Inc., 3101 Wilshire Blvd., Los Angeles 5, Calif. (B-Hvy)
- Early, Fred J., Jr. Co., Inc., P. O. Box 114, Torrance, Calif. (B-Hvy)
- Ehrhart & Arthur, Inc., 417 S. Hill St., Rm. 920, Los Angeles 13, Calif. (Hvy)
- Ellis, C. W., Constr. Co., 8240 Lankershim Blvd., North Hollywood, Calif. (H)
- El Rio Rock Co., P. O. Box 548, Ventura, Calif. (H)
- Emasco Concrete Cutting Co. of Los Angeles, 2751 E. 11th St., Los Angeles 23, Calif. (Hvy)
- Emtman, Eric W., 3825 Vine St., Riverside, Calif. (B-Hvy)
- Engineers, Ltd., 605 W. Olympic Blvd., Los Angeles 14, Calif. (B)
- Engineers Ltd. Pipeline Co., 12714 Inglewood Ave., Hawthorne, Calif. (Hvy)
- Erwin, R. A., P. O. Box 231, Colton, Calif. (B-H-Hvy)
- Escherich Bros., Inc., 645 S. Ave. 21, Los Angeles 31, Calif. (B)
- Fadel, Norman I., Box 206, North Hollywood, Calif. (H-Hvy)
- Famularo, A. H., P. O. Box 239, Santa Ana, Calif. (B-H-Hvy)
- Ferry, Peter L., & Son, 5201 N. San Fernando Rd., Glendale 3, Calif. (Hvy)
- Fisher, Claude, Co., Ltd., 2455 E. 55th St., Los Angeles 58, Calif. (H)
- Fitzgerald Engr. & Constr. Co., 625 Rowan Bldg., Los Angeles 13, Calif. (B-H-Hvy)
- Fluor Corp., Ltd., The, 2500 S. Atlantic Blvd., Los Angeles 22, Calif. (B-Hvy)
- Foster & McHarg, 3610 8th St., P. O. Box 244, Riverside, Calif. (H-Hvy)
- Gast, Harry, 8853 Venice Blvd., Los Angeles 34, Calif. (Hvy)
- Gerwick, Ben C., Inc., 112 Market St., San Francisco 11, Calif. (B-H-Hvy)
- Gill Constr. Co., 2931 Pierce Rd., Bakersfield, Calif. (H)
- Goode & Schroeder, Inc., 3033 Treadwell St., Los Angeles 41, Calif. (H-Hvy)
- Gould & Cross, Box 427, Wilmington, Calif. (H)
- Grandy, E. F., P. O. Box 401, Laguna Beach, Calif. (B-Hvy)
- Granite Constr. Co., P. O. Box 900, Watsonville, Calif. (B-H-Hvy)
- Green, Edw., Co., 3001 Coolidge Ave., Los Angeles 26, Calif. (H-Hvy)
- Gridley Constr. Co., P. O. Box 649, Oxnard, Calif. (B-Hvy)
- Griffith Co., 1060 S. Broadway, Los Angeles 15, Calif. (B-H-Hvy)
- Gunn Constr. Co., 2903 Beverly Blvd., Los Angeles 4, Calif. (B)
- Gunther & Shirley Co., 714 W. Olympic Blvd., Los Angeles 15, Calif. (H-Hvy)
- Haas, E. T., Co., P. O. Box 6969, East Los Angeles 22, Calif. (Hvy)
- Haddock Engrs., Ltd., 1616 S. Greenwood Ave., P. O. Box 390, Montebello, Calif. (B-H-Hvy)
- Haddock, J. E., Ltd., P. O. Box 188E, Pasadena 8, Calif. (H-Hvy)
- Hahn-St. John, 219 N. Hawthorne Blvd., Hawthorne, Calif. (B)
- Hall, Guy E., P. O. Box 1723, Bakersfield, Calif. (B-H-Hvy)
- Hall, W. E., Constr. Co., Box 470, Alhambra, Calif. (H-Hvy)
- Halper Constr. Corp., 739 N. Highland Ave., Los Angeles 38, Calif. (B)
- Halvorson Contrs., Box 307, Goleta, Calif. (B-H-Hvy)
- Harvey Constr. Co., 2065 N. Peck Rd., El Monte, Calif. (H)
- Harvey & Rose, 11 N. 5th Ave., Arcadia, Calif. (B-H-Hvy)
- Hasler, M. H., Constr. Co., P. O. Box 387, Santa Ana, Calif. (H-Hvy)
- Heisler & Woods, 229 S. Hoyt Ave., El Monte, Calif. (H-Hvy)
- Hensler, R. R., 7550 Wheatland Ave., Sun Valley, Calif. (H)
- Herz, Geo., & Co., P. O. Box 191, San Bernardino, Calif. (B-H)
- Herz Paving Co., 234 S. E. St., San Bernardino, Calif. (B-H)
- Hickey, Frank T., Inc., 3539 Temple St., Los Angeles 4, Calif. (H-Hvy)
- Hogland-Findlay Engr. Co., 3254 Cherry Ave., Long Beach 7, Calif. (B-Hvy)
- Hogan Co., The, 3400 Arlington Ave., Riverside, Calif. (B-H-Hvy)
- Honer, Allison, Co., P. O. Box 84, Santa Ana, Calif. (B)
- Hood Constr. Corp., 3002 E. Century Blvd., Lynwood, Calif. (Hvy)
- Industrial Engrs., Inc., 817 E. 59th St., Los Angeles 1, Calif. (B-Hvy)
- Irish, E. A., 2944 Gleneden St., Los Angeles 26, Calif. (Hvy)
- Izzi, Michael, 4819 N. Arden Dr., Temple City, Calif. (B-H-Hvy)
- J. & B. Constr. Co., 5572 Valley Blvd., Los Angeles 32, Calif. (B)
- Jamison, E. J., 1749-1761 E. 21 St., Los Angeles 58, Calif. (B-Hvy)
- Johnson, J. Walter, 5205 Hollywood Blvd., Los Angeles 27, Calif. (B-Hvy)
- Johnson Western Constrs., P. O. Box 6, San Pedro, Calif. (B-Hvy)
- Jones Bros., 147 San Vicente Blvd., Beverly Hills, Calif. (B)
- Kaiser, E. A., Co., Inc., 8825 Olympic Blvd., Beverly Hills, Calif. (B)
- Kaiser Engrs., Div. of Henry J. Kaiser Co., P. O. Box 157, Fontana, Calif. (B-H-Hvy)
- Kaucher, Walter, 9880 W. Pico Blvd., Los Angeles 35, Calif. (B-H-Hvy)
- Kellogg, M. W., Co., The, 225 Broadway, New York 7, N. Y. (B-Hvy)
- Kemp Bros., 8750 Mettler St., Los Angeles 3, Calif. (B-Hvy)
- Kemper Constr. Co., 3701 Overland Ave., Los Angeles 34, Calif. (H-Hvy)
- Kerns, G. E., 5574 Atlantic Ave., Long Beach 5, Calif. (H-Hvy)
- Kier, W. E., Constr. Co., 2323 E. Rosecrans, P. O. Box 147, El Segundo, Calif. (B-Hvy)
- Kiewit, Peter, Sons' Co., 345 Kieways Ave., Arcadia, Calif. (B-H-Hvy)
- Kirst Constr. Co., 836 W. Atlanta St., Altadena, Calif. (H)
- Klarquist, John A., 618 S. Western Ave., Los Angeles 5, Calif. (B)
- Kleinsmid Constr. Co., Inc., P. O. Box 971, Bakersfield, Calif. (H)
- Kuhns, J. A., Constr. Co., 1223 E. South St., Long Beach 5, Calif. (B)
- L. A. Paving Co., 3700 S. Soto St., Los Angeles 11, Calif. (H)
- Lane, Richard M., 4719 Exposition Blvd., Los Angeles 16, Calif. (B)
- Lee & Neal, 315 Laguna, Santa Barbara, Calif. (Hvy)
- Liberty Bldg. Co., 2209 Michigan Ave., Santa Monica, Calif. (B)
- Lindgren & Swinerton, Inc., 605 W. Olympic Blvd., Los Angeles 15, Calif. (B-H-Hvy)
- Lorber, Melvin, 7458 Beverly Blvd., Los Angeles 36, Calif. (B)
- Losch, E. C., Co., 8302 E. Center St., Paramount, Calif. (Hvy)
- Lyles, W. M., Co., P. O. Box 495, Avenal, Calif. (Hvy)
- M. J. B. Constr. Co., 322 Elks Bldg., Stockton 1, Calif. (H)
- M & K Corp., Frederickson & Watson Constr. Co., & Pionbio Constr. Co., 405 Montgomery St., San Francisco 4, Calif. (B-H-Hvy)
- MacClosky, Chas., Co., 808 S. Vermont Ave., Los Angeles, Calif. (H-Hvy)
- Macco Corp., 14409 S. Paramount Blvd., Paramount, Calif. (H-Hvy)
- MacDonald & Kruse, P. O. Box 306, Sun Valley, Calif. (B-H-Hvy)
- MacDonald, Young & Nelson, Inc., 351 California St., San Francisco 4, Calif. (B-H-Hvy)
- MacIsaac, Menke & Roach, Inc., 3440 E. 14th St., Los Angeles 23, Calif. (B-Hvy)
- Madonna Constr. Co., P. O. Box 910, San Luis Obispo, Calif. (H-Hvy)
- Maguire, J. C., & Co., Architects Bldg., Los Angeles 17, Calif. (Hvy)
- Martin, Guy T., & Co., 642 E. Olive St., P. O. Box 432, Gardena, Calif. (B-Hvy)
- Martin, Vic, 1074 S. Arroyo Pkwy., Pasadena 2, Calif. (B-H-Hvy)
- Mathews Constr. Co., 1100 Westminster, Alhambra, Calif. (H-Hvy)
- McClain Constr. Co., Inc., 570 N. Prairie Ave., Hawthorne, Calif. (H-Hvy)
- McElvany, J. L., P. O. Box 261, El Centro, Calif. (H-Hvy)
- McGinnis & Gautier, Inc., 11925 Vose St., North Hollywood, Calif. (H)
- McKee, Arthur, & Co., 2300 Chester Ave., Cleveland 1, Ohio (B)
- McKee, Robt. E., Gen. Contr., Inc., P. O. Box 350, Glendale 26, Calif. (B-H-Hvy)
- McKittrick, E. S., Co., Inc., P. O. Box 470, Huntington Park, Calif. (B-Hvy)
- McNeil, J. A., Co., 3115 W. Mission Rd., Alhambra, Calif. (B)
- Meadow Constr. Co., P. O. Box 1428, Bakersfield, Calif. (H-Hvy)
- Mecham, M. S., & Sons, 11125 Garfield Ave., South Gate, Calif. (H)
- Meredith, Trent, 407 S. B St., Oxnard, Calif. (B-H-Hvy)
- Merrill, Ted F., & Sons, 911 E. Redondo Blvd., Inglewood, Calif. (B)

CALIFORNIA—Continued

- Miller, Geo., Constr. Co., 3032 Bandini Blvd., Los Angeles 23, Calif. (Hvy)
 Miller & Miller, 5941 W. Venice Blvd., Los Angeles 34, Calif. (B-Hvy)
 Mittry Constrs., 4801 San Fernando Rd., Los Angeles 39, Calif. (H-Hvy)
 Modern Bldrs. Constr. Co., Inc., 2812 Long Beach Blvd., Long Beach 6, Calif. (B-H-Hvy)
 Montank & Son, 5142 Onacrest Dr., Los Angeles 43, Calif. (H)
 Montgomery, J. M. & Co., Inc., 900 S. Robertson Blvd., Los Angeles 35, Calif. (B-Hvy)
 Moody, Garn L., P. O. Box 469, North Hollywood, Calif. (H-Hvy)
 Moran, Wm. J., Co., 1011 S. Fremont Ave., Alhambra, Calif. (B-H-Hvy)
 Morrison-Knudsen Co., Inc., 411 W. 5th St., Los Angeles 13, Calif. (B-H-Hvy)
 Myers Bros., 3407 San Fernando Rd., Los Angeles 65, Calif. (B-H-Hvy)
 Nappe Constr. Co., Inc., 11601 Cantara St., North Hollywood, Calif. (H-Hvy)
 Newbery Elec. Corp., 1038 Venice Blvd., Los Angeles 15, Calif. (Hvy)
 Nicholas, K. B., P. O. Box 551, 720 N. Vine, Ontario, Calif. (B-H-Hvy)
 Nichols, Harvey A., 926 E. Slauson Ave., Los Angeles 11, Calif. (B)
 Nicholson, H. B., 117 E. Colorado St., Pasadena 1, Calif. (B-Hvy)
 Noble, R. J., Co., P. O. Box 620, Orange, Calif. (H)
 Normac, Inc., P. O. Box 470, Huntington Park, Calif. (B)
 Nottingham, M. C., Co., 5933 N. Cloverly Ave., Temple City, Calif. (Hvy)
 Oberg Bros. Constr. Co., Box 640, Inglewood, Calif. (H-Hvy)
 Oberg, Lars, 4982 Valley Ridge Ave., Los Angeles 43, Calif. (H)
 Ofeco Constr. Co., Inc., 2650 Cherry Ave., Long Beach 6, Calif. (B-Hvy)
 Olerich, Walter F., 8116 W. 3d St., Los Angeles 48, Calif. (B-H-Hvy)
 Olson, F., 1937 W. Florence Ave., Los Angeles 44, Calif. (B)
 Osborn Co., 3200 Edgecliff Lane, Pasadena 8, Calif. (H)
 Oswald Bros., 366 E. 58th St., Los Angeles 11, Calif. (H)
 Owl Truck & Constr. Co., 500 S. Alameda St., P. O. Box 509, Compton, Calif. (H-Hvy)
 Pacific Contr. Corp., P. O. Box 72, Newport Beach, Calif. (B-H-Hvy)
 Pacific Crane & Rigging Co., 6800 S. Alameda, Los Angeles 1, Calif. (H-Hvy)
 Pacific Pipeline Constr. Co., 1632 S. Greenwood Ave., Montebello, Calif. (Hvy)
 Page Corp. & T. M. Page, 145 W. Duarte Rd., Monrovia, Calif. (H-Hvy)
 Parkhill-Wade, Box 6877, E. Los Angeles Br., Los Angeles 22, Calif. (B-Hvy)
 Parsons, Ralph M., Co., The, 617 S. Olive St., Los Angeles 14, Calif. (B-H-Hvy)
 Pavement Planing Co., 4338 Sunset Blvd., Los Angeles, Calif. (H)
 Payne, G. J., Co., Inc., 6810 Crenshaw Blvd., Los Angeles 43, Calif. (H-Hvy)
 Pecel, B. & Sons, 11751 Vose St., North Hollywood, Calif. (Hvy)
 Peck, C. L., 407 Architects Bldg., 816 W. 5th St., Los Angeles 17, Calif. (B)
 Peterson, Geo. W., 6170 1/2 Santa Monica Blvd., Los Angeles 38, Calif. (B-H)
 Phoenix Constr. Co., Inc., P. O. Box 906, Bakersfield, Calif. (H)
 Pipe Line Constrs., P. O. Box 97, Bakersfield, Calif. (H)
 Plunkett, North H., & Co., 2909 Junipero Ave., Long Beach, Calif. (H-Hvy)
 Pollock, Geo., Co., Box 903, Sacramento 5, Calif. (B-H-Hvy)
 Pozzo Constr. Co., Ltd., 2403 Riverside Dr., Los Angeles 39, Calif. (B)
 Price, Vido S., & Glenn Graham, 2901 Worthen Ave., Los Angeles 39, Calif. (H)
 Price, R. M., Co., 2285 Pine Crest Dr., Altadena, Calif. (H-Hvy)
 Procon, Inc., P. O. Box 95, El Segundo, Calif. (B)
 Pugh Constr. Corp., 1525 N. Gaffey St., San Pedro, Calif. (B-H-Hvy)
 Quinn & Conant, 8474 W. 3d St., Los Angeles 36, Calif. (B)
 Radich & Fergusson, Inc., 3000 Empire Ave., Burbank, Calif. (H-Hvy)
 Radkovich, Wm., Co., 4920 E. Washington, Los Angeles 22, Calif. (H-Hvy)
 Rados, Steve P., 2975 San Fernando Rd., Los Angeles 41, Calif. (H-Hvy)
 Ramljak, M., 3001 Worthen Ave., Los Angeles 26, Calif. (Hvy)
 Rand Constr. Co., P. O. Box 1339, Bakersfield, Calif. (H-Hvy)
 Rexroth & Rexroth, P. O. Box 1138, Bakersfield, Calif. (H)
 Reynolds, Roland T., Rt. 4, 8751 Sunkist, Anaheim, Calif. (H-Hvy)
 Rhoades Shofner Constr. Co., Inc., 727 W. 7 St., Suite 600, Los Angeles 17, Calif. (H-Hvy)
 Rice Bros., Inc., P. O. Box 1489, Marysville, Calif. (H)
 Robertson, Alex., Co., 14433 S. Paramount Blvd., Paramount, Calif. (Hvy)
 Robertson, W. E., 4015 W. Jefferson Blvd., Los Angeles 16, Calif. (B-H)
 Rounds, Chas. J., 4529 Alger St., Los Angeles 26, Calif. (H)
 Saliba, N. M., Co., P. O. Box 1673, Wilshire-LaBrea Sta., Los Angeles 36, Calif. (B-H-Hvy)
 Santa Barbara Crane Service, P. O. Box 92, Santa Barbara, Calif. (Hvy)
 Schroeder & Co., Inc., 8140 Tujunga, Box 308, Sun Valley, Calif. (H-Hvy)
 Senness Corp., 3000 Pacific Coast Hwy., Torrance, Calif. (B)
 Sharp & Fellows Contr. Co., 533 Central Bldg., Los Angeles 14, Calif. (B-H-Hvy)
 Shaw, Donald F., 1901 Blake Ave., Los Angeles 26, Calif. (B)
 Shea Co., The, 2801 W. Mission Rd., Alhambra, Calif. (Hvy)
 Shelby, Peter P., 4414 W. Jefferson Blvd., Los Angeles 16, Calif. (B)
 Silva & Hill Constr. Co., 5575 Valley Blvd., Los Angeles 32, Calif. (H)
 Simpson, Wm., Constr. Co., The, 816 W. 5th St., Los Angeles 17, Calif. (B-Hvy)
 Smale & Robinson, Inc., 1033 Avalon Blvd., Wilmington, Calif. (B-Hvy)
 Smith, Ben F., Co., 333 S. Rosemead Blvd., Pasadena 8, Calif. (B-Hvy)
 Smith-Campbell Co., 6510 Cherry Ave., Long Beach 5, Calif. (B)
 Smith, H. C., Co., 718 E. 16th St., Los Angeles 21, Calif. (B-H-Hvy)
 Southwest Paving Co., P. O. Box 338, Sun Valley, Calif. (H)
 Southwestern Engr. Co., 4800 Santa Fe Ave., Los Angeles 58, Calif. (B-Hvy)
 Sparks, C. O., & Mundo Engr. Co., Inc., 2727 E. Washington Blvd., Los Angeles 23, Calif. (H-Hvy)
 Speer, Paul W., Inc., 3425 Cahuenga Blvd., Los Angeles 28, Calif. (B)
 Spencer, Paul, 151 N. Acacia, San Dimas, Calif. (B)
 Spicer Co., P. O. Box 8383, W. Adams Sta., Los Angeles 16, Calif. (H-Hvy)
 Standard Dredg. Corp., 800 Central Bldg., Los Angeles 14, Calif. (Hvy)
 Stanton-Reed Co., 816 W. 5th St., Los Angeles 17, Calif. (B)
 Starratt Brothers and Eken, Incorporated, 6120 W. 3d St., Los Angeles 36, Calif. (B-Hvy)
 State Constr. Co., 3248 Long Beach Ave., Los Angeles 11, Calif. (Hvy)
 Steed Bros., Box 350, Alhambra, Calif. (B)
 Stolte, Inc., 8451 San Leandro St., Oakland 3, Calif. (B-H-Hvy)
 Stone & Webster Engineering Corp., Edison Bldg., Los Angeles 17, Calif. (Hvy)
 Stuckey & Carroll Constr. Co., 121 E. Las Tunas Dr., San Gabriel, Calif. (B-H-Hvy)
 Subgrade Engr. Corp., P. O. Box 631, Bell, Calif. (H-Hvy)
 Sully-Miller Contr. Co., 1500 W. 7th St., Long Beach 6, Calif. (H)
 Summerbell Roof Structures, 825 E. 29th St., Los Angeles 11, Calif. (B-H)
 Swigart, John J., Co., P. O. Box 155, Torrance, Calif. (H-Hvy)
 T-S Constr. Engrs., Inc., 600 St. Paul Ave., Los Angeles 17, Calif. (B)
 Teichert, A. & Son, Inc., 1931 Stockton Blvd., P. O. Box 1113, Sacramento 5, Calif. (H-Hvy-RR)
 Thompson, E. S., 832 W. 5th St., Los Angeles 17, Calif. (B)
 Thompson, J. A., & Son, P. O. Box 518, Inglewood, Calif. (B-H-Hvy)
 Tomei Constr. Co., 4737 Orion St., Van Nuys, Calif. (H-Hvy)
 Triangle Rock & Gravel Co., P. O. Box 2098, Uptown Sta., San Bernardino, Calif. (H-Hvy)
 Trousdale Constr. Co., 650 N. Sepulveda Blvd., Los Angeles 24, Calif. (B)
 Tuttle, C. B., Co., 1389 Gladys Ave., Long Beach 4, Calif. (Hvy)
 Twaits, Ford J., Co., 449 S. Beaudry St., Los Angeles 17, Calif. (B-H-Hvy)
 United Concrete Pipe Corp., Box 425, Baldwin Park, Calif. (H-Hvy)
 United Construction Co., Pier E, Terminal Island, P. O. Box 1887, Long Beach, Calif. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CALIFORNIA—Continued

United States Constr. Corp., 111 E. Chartres St., Anaheim, Calif. (B-H)
 Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif. (B-H-Hvy)
 Utility Constr. Co., 9830 Atlantic Blvd., South Gate, Calif. (Hvy)
 Valley Paving & Constr. Co., Inc., P. O. Box 6, Pismo Beach, Calif. (H-Hvy)
 Van Valkenburgh, N. P., 8609 San Vincente Ave., South Gate, Calif. (Hvy)
 Vernon Paving Co., Inc., 3200 E. Vernon Ave., Los Angeles 58, Calif. (H)
 Vinnell Co., Inc., 1145 Westminster Ave., Alhambra, Calif. (B-H-Hvy)
 Vlacich, Robt., 2901 Worthen Ave., Los Angeles 39, Calif. (H-Hvy)
 Walker, P. J., Co., 3900 Whiteside Ave., Los Angeles 63, Calif. (B-H-Hvy)
 Walsh Construction Company, 785 Market St., San Francisco 3, Calif. (B-H-Hvy)
 Walsh, T. H., & Argo Engr. Co., 4017 Medford St., Los Angeles 33, Calif. (H-Hvy)
 Warren Southwest, Inc., P. O. Box 419, 20900 S. Normandie Ave., Torrance, Calif. (H-Hvy)
 Wattson, R. A., Co., 5528 Vineland Ave., P. O. Box 747, North Hollywood, Calif. (H-Hvy)
 Webb, Del E., Constr. Co., 5101 San Fernando Rd., Los Angeles 39, Calif. (B-Hvy)
 Webb & White, 7220½ Melrose Ave., Los Angeles 46, Calif. (H-Hvy)
 Western Contr. Corp., Rm. 907 Transamerica Bldg., 649 S. Olive St., Los Angeles 14, Calif. (H-Hvy)
 Western Motor Transfer, Inc., 118 State St., Santa Barbara, Calif. (H-Hvy)
 Western States Engrs., Inc., 5706 Airdrome St., Los Angeles 19, Calif. (B-Hvy)
 Western U. S. Constr. Co., 601 6th St., San Fernando, Calif. (B)
 Wilcox, Jack, P. O. Box 448, Huntington Park, Calif. (H)
 Willard-Brent Co., 254 E. 27th St., Los Angeles 11, Calif. (B)
 Williams & Burrows, Inc., & Carl N. Swenson Co., Inc., 10 California Dr., Burlingame, Calif. (B)
 Williams Waterproofing & Painting Co., 3107 Fletcher Dr., Los Angeles 65, Calif. (B)
 Willis, C. G., & Sons, Inc., 2119 E. 25th St., Los Angeles 11, Calif. (H-Hvy)
 Willson, Jack, 7111 Rio Flora Pl., Downey, Calif. (B-Hvy)
 Winston Bros. Company, 1532 S. California Ave., Monrovia, Calif. (B-H-Hvy)
 Wohl-Calhoun Co., 845 N. Highland Ave., Los Angeles 38, Calif. (B)
 Wonderly Constr. Co., 2694 Lime Ave., Long Beach 6, Calif. (H-Hvy)
 Wood, Clyde W., & Sons, Inc., 6900 Tujunga Ave., P. O. Box 620, North Hollywood, Calif. (B-H-Hvy)
 Yeager, E. L., Co., P. O. Box 87, Riverside, Calif. (H)
 Young, J. E., Pipeline Contr., Inc., 931 E. Rosecrans Ave., Los Angeles 2, Calif. (Hvy)

5. COLORADO

(a) COLORADO BUILDING CHAPTER

President—Gerald H. Phipps, Platt Rogers, Inc., P. O. Box 2068, Denver, Colo.
Secretary-Manager—William S. Hibberd, 1421 Court Pl., Denver, Colo. Telephone: Alpine 6604
 Bate, Thos., & Sons Co., 2311 10th St., Denver, Colo. (B)
 Bickhard Constr. Co., 3940 W. 35th Ave., Denver, Colo. (B)
 Brown-Schrepperman & Co., 240 Washington St., Denver 9, Colo. (B-H)
 Denver Bldrs., Inc., 1420 Ulster St., Denver, Colo. (B)
 Elder Constr. Co., 175 Valjejo St., Denver 9, Colo. (B)
 Empire Constr. Co., 3159 S. Broadway, Englewood, Colo. (B)
 Folsom Constr. Co., 40 W. Louisiana St., Denver 10, Colo. (B)
 Gaasland Co., Inc., S. York & Jewell, Denver, Colo. (B)
 Hammond, H. W., 2600 Front View Crescent, Denver 11, Colo. (B)
 Hobbs, E. L., Constr. Co., 520 Acoma St., Denver 4, Colo. (B)
 Howell, Jas. R., & Co., 1030 W. 6th Ave., Denver, Colo. (B)
 Industrial Constrs., 3860 Galapago St., Denver 16, Colo. (B)
 J. & K. Constr. Co., 1378 Dexter St., Denver 7, Colo. (B)
 Johns Engr. Co., 375 Kalamath St., Denver 9, Colo. (B)
 Jones, E. B. & A. A., 682 Wyandotte St., Denver 4, Colo. (B)
 Jones & Hezlep, 1 Galapago St., Denver 9, Colo. (B)
 Keller, John H., Constr. Co., 3613 E. 44th Ave., Denver, Colo. (B)
 Kenney, Frank M., Box 890, Denver, Colo. (B)
 Kenney, Jas. B., 3233 Osage St., Denver 11, Colo. (B)
 Kiewit, Peter, Sons' Co., Box 8787 University Pk. Sta., Denver 10, Colo. (B)
 Kirchhof, F. J., Constr. Co., 700 Lawrence St., Denver 4, Colo. (B)
 Marye-Northwestern Co., 1300 Cherokee, Denver, Colo. (B)
 Mayer-Osborn Co., 1717 E. Colfax, Denver, Colo. (B)
 McNichol Constr. Co., The, 33 S. Fox St., Denver, Colo. (B)
 Mellwin Constr. Co., The, 35 S. Fox St., Denver 9, Colo. (B)
 Mier-Pearse, Inc., 2045 W. 8th Ave., Denver, Colo. (B)
 Morris Constr. Co., 330 W. Asbury Ave., Denver, Colo. (B)
 Musick-Meyer Constr. Co., P. O. Box 28, Grand Junction, Colo. (B)
 Nielsen, N. R., & Sons, 632 Detroit St., Denver 6, Colo. (B)
 Olson Constr. Co., 535 Railway Exchange Bldg., Denver, Colo. (B)
 Olson & Hart, 323 Santa Fe Dr., Denver 9, Colo. (B)

Perlmutter, Abe, Constr. Co., Inc., 401 Valjejo St., Denver 9, Colo. (B)
 Petry, N. G., Constr. Co., 7th & Mariposa, Denver, Colo. (B)
 Rogers, Platt, Inc., P. O. Box 2068, Denver, Colo. (B)
 Short, Harry E., Tile Co., 1132 Speer Blvd., Denver, Colo. (B)
 Swinerton & Walberg Co., 2040 S. Navajo, S. Denver Sta., Denver, Colo. (B)
 Tamminga, John S., Tramway Bldg., Denver 2, Colo. (B)
 Udesen, Robt., 3775 E. Alameda, Denver, Colo. (B)
 Utah Construction Co., Rocky Mountain Arsenal, Denver 2, Colo. (B-H-Hvy-RR)

(b) COLORADO CONTRACTORS ASSOCIATION, INC.

President—Dan G. Bell, Peter Kiewit Sons' Co., P. O. Box 8787, University Park Sta., Denver 10, Colo.
Managing Director—Earle W. Devalon, 302 Flat Iron Bldg., Denver 2, Colo. Telephone: Acoma 3524
 Adler Constr. Co., P. O. Box 595, Home State Bank Bldg., Loveland, Colo. (H-Hvy)
 Anderson Contr. Co., 1114 6th Ave., Longmont, Colo. (H)
 Anderson, F. B., Inc., 939 J St., Los Banos, Calif. (Hvy)
 Arthur & Allen, 409 N. Grand Ave., P. O. Box 1432, Pueblo, Colo. (H-Hvy)
 Atchison, R. R., Co., The, 4214 S. Logan St., Englewood, Colo. (H)
 Atkinson, Guy F., Co., 519 Symes Bldg., Denver 2, Colo. (H-Hvy)
 Baab Constr. Co., 828 19th St., Greeley, Colo. (H-Hvy)
 Berry, C. B., 764 Humboldt St., Denver 18, Colo. (H)
 Birchby & Nauman, Inc., 845 Navajo St., Denver 4, Colo. (H-Hvy)
 Blanchard, G. E., 4615 E. 6th Ave., Denver 20, Colo. (H)
 Brown Constr. Co., 17 Belle Aire Rd., Colorado Springs, Colo. (H)
 Burnett Constr. Co., 509 8th Ave., Durango, Colo. (H)
 Campsey, R. N., Constr. Co., 2238 Oneida St., Denver 7, Colo. (B-H)
 Choun Constr. Co., Inc., 980 Yates St., Denver 4, Colo. (Hvy)
 Colorado Constrs., Inc., 725 W. 39th Ave., Denver 16, Colo. (H)
 Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
 Corn Constr. Co., 414 Santa Clara Ave., Grand Junction, Colo. (Hvy)
 Crocker & Ellett, Inc., 1863 Wazee St., Denver 2, Colo. (Hvy)
 Engineers Ltd. Pipeline Co., 2040 S. Navajo St., P. O. Box 4279, S. Denver Sta., Denver 9, Colo. (Hvy)
 Gardner Constr. Co., Box 360, Glenwood Springs, Colo. (H)
 Gordon Constr. Co., 1950 31st St., Denver 5, Colo. (H-Hvy)
 Haake, Floyd, 111 Lovato Lane, Santa Fe, N. Mex. (H)

COLORADO—Continued

Hanes, C. M., Constr. Co., 110 W. 13th Ave., Denver 4, Colo. (H-Hvy)
 Harrison Constr. Co., The, 1566 S. Bannock St., Denver 10, Colo. (H)
 Hayes, Milton R., Rt. 1, Box 499, Arvada, Colo. (H-Hvy)
 Heckendorf, F. A., 231 S. Curtis Ave., Littleton, Colo. (H)
 Hill, Carl V., 1844 13th Ave., Greeley, Colo. (H)
 Hinman Bros. Constr. Co., The, P. O. Box 2571, Denver 1, Colo. (H-Hvy)
 Honnen, Ed. H., P. O. Box 5188, Terminal Annex, Denver 17, Colo. (H)
 Horn's Crane Service, 2735 W. Bayaud, Denver 19, Colo. (H)
 Horner, A. S., Constr. Co., 118 S. Pecos St., Denver 19, Colo. (H-Hvy)
 Hubner, C. L., Co., 4200 E. Jewell Ave., Denver 20, Colo. (H)
 Hunt Constr. Co., Steamboat Springs, Colo. (H)
 Hutcheson Constr. Co., Inc., 4101 E. Evans Ave., Denver 20, Colo. (H-Hvy)
 Inland Constr. Co., 414 Hynds Bldg., Box 197, Cheyenne, Wyo. (H-Hvy)
 Jacobs, M. C., Constr. Co., 1161 S. St. Paul St., Denver 10, Colo. (H)
 Jones Constr. Co., 10550 W. Colfax Ave., Denver 14, Colo. (Hvy)
 Kenney, Frank M., Box 898, Denver 1, Colo. (B)
 Kenney, Jas. B., Inc., 3233 Osage St., Denver 11, Colo. (B-H)
 Kiewit, Peter, Sons' Co., Box 8787, University Park Sta., Denver 10, Colo. (Hvy)
 Lawrence Constr. Co., 112 S. Elati St., Denver 19, Colo. (H)
 Leone, Domenic, Constr. Co., Inc., 818 Oak St., Trinidad, Colo. (H)
 Lindstrom & Williams, 730 W. 42d Ave., Denver 16, Colo. (H)
 Lively, Ed., P. O. Box 185, Mosquero, N. Mex. (H)
 Lowdermilk Bros., 1950 W. Dartmouth, P. O. Box 4150, S. Denver Sta., Denver 9, Colo. (H-Hvy)
 Macco Corp., Puget Sound Bridge & Dredg. Co., 14409 S. Paramount Blvd., Paramount, Calif. (Hvy)
 Magoffin, S. S., Co., Englewood, Colo. (Hvy)
 Mann Constr. Co., 2700 S. Elati St., Englewood, Colo. (Hvy)
 Mitty, K. S., Constr. Co., 416 Linden St., Ft. Collins, Colo. (H-Hvy)
 Monaghan, J. H.-N. M., Rt. 1, Derby, Colo. (H-Hvy)
 Monaghan & Kilgroe Constr. Co., Rt. 1, Derby, Colo. (H)
 Monaghan & Lindsay Constr. Co., Rt. 1, Derby, Colo. (H)
 Monaghan & Smith Constr. Co., Rt. 1, Derby, Colo. (H)
 Northwestern Engr. Co., P. O. Box 567, Denver 1, Colo. (H)
 Pettyjohn, F. S., Rt. 1, Alamosa, Colo. (H)
 Read Constr. Co., 706 W. 19th St., P. O. Box 357, Cheyenne, Wyo. (H-Hvy)
 Rippey, E. J., & Sons, Box 472, New Castle, Colo. (H)

Rogers, Platt, Inc., P. O. Box 153, Pueblo, Colo. (H-Hvy)
 San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans. (H)
 Schmidt Constr. Co., P. O. Box 66, Grand Junction, Colo. (H)
 Sears, M. J., 509 15th St., Denver 2, Colo. (H)
 Selander, Edw., 1010 Pikeview, Lakewood 15, Colo. (H-Hvy)
 Shore, Henry, Co., P. O. Box 271, Littleton, Colo. (H)
 Smith, Luke E., 1221 12th St., Denver 4, Colo. (H-Hvy)
 Smith, Wm. A., Contr. Co., Inc., 1401 Fairfax Trafficway, Kansas City 15, Kans. (RR)
 Tarlton, G. L., Contr. Co., 5505 Dale Ave., St. Louis 10, Mo. (Hvy)
 Van Winkle, W. F. & D. E., 1609 Ford St., Golden, Colo. (H)
 Western Constr. Inc., 2500 S. 8th Ave., Greeley, Colo. (Hvy)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy)
 Williams Constr. & Drilling Co., 970 Pennsylvania St., Apt. 308, Denver 3, Colo. (H)
 Winston Bros. Company, P. O. Box 208, Loveland, Colo. (H-Hvy)
 Wunderlich Contracting Company, 206 Patterson Bldg., Omaha 2, Nebr. (H-Hvy)

6. CONNECTICUT

(a) CONNECTICUT STATE CHAPTER

President—A. Scott Paterson, Paterson Constr. Co., Inc., 66 Anderson St., New Haven, Conn.
 Executive Vice President—Charles F. Grisham, 152 Temple St., New Haven, Conn.
 Telephone: 7-8536
 Allaire, P., & Sons, Inc., 350 Riverside Ave., Bristol, Conn. (B)
 Ames Constr. Co., The, 15 Standish St., Hartford, Conn. (B)
 Anderson Fair Oaks Constr. Co., 145 S. Marshall St., Hartford, Conn. (B)
 Associated Constr. Co., The, 1010 Wethersfield Ave., Hartford, Conn. (B)
 Barney, W. J., Corp., c/o The Pfizer Co., Groton, Conn.
 Bartlett-Brainard Co., 103 Woodbine St., Hartford 6, Conn. (B)
 Blakeslee, C. W., & Sons, Inc., 58 Waverly St., New Haven, Conn. (B-H-Hvy-RR)
 Bonvicini Bldg. Co., 1500 S. Main St., Torrington, Conn. (B)
 Brady, Geo. J., Co., Inc., 134 4th St., Hamden, Conn. (B)
 Bray, Edw. E., Co., Inc., 362 River St., Bridgeport, Conn. (B)
 Brooklawn Constr. Co., The, 254 Prospect Ave., Hartford, Conn. (B)
 Burghart, O. F., Inc., 871 Central Ave., Bridgeport 8, Conn. (B)
 Carlson & Torell Co., The, 50 Dwight St., New Britain, Conn. (B)

Chapel Constr. Co., The, 100 Ashmun St., New Haven, Conn. (B)
 Dwight Bldg. Co., The, 152 Temple St., New Haven, Conn. (B)
 E. & F. Constr. Co., Inc., The, 94 Wells St., Bridgeport 6, Conn. (B-Hvy)
 Frouge Constr. Co., Inc., 74 Goodsell St., Bridgeport, Conn. (B)
 Fusco-Amatruda Co., The, 59 Amity Rd., New Haven, Conn. (B)
 Gellatly Constr. Co., The, 181 Sylvan Ave., P. O. Box 6024, Beardsley Sta., Bridgeport 6, Conn. (B)
 Giordano Constr. Co., 287 Main St., Branford, Conn. (B)
 Halprin, Jack A., Inc., 679 State St., New Haven, Conn. (B)
 Hubbell, S. W., Bldg. Co., The, 589 Knowlton St., Bridgeport, Conn. (B)
 Industrial Constr. Co., The, 120 Prospect Ave., Hartford, Conn. (B)
 Johnson, Richard, Co., 167 Washington St., Hartford 6, Conn. (B)
 Kelley-Wood Co., The, 76 Center St., New Haven, Conn. (B)
 Kelly, Jos. F., Co., The, 184 Front Ave., P. O. Box 206, West Haven, Conn. (B)
 Lines, H. Wales, Co., The, 134 State St., Meriden, Conn. (B)
 Maring, Harry, Jr., Inc., 536 Lindley St., Bridgeport, Conn. (B)
 Massacoe Bldrs., Inc., Simsbury, Conn. (B)
 Megin, W. J., Inc., 51 Elm St., Naugatuck, Conn. (B)
 Monaco Constr. Co., The, 104 Reservoir Ave., Bridgeport, Conn. (B)
 Moss, Edwin, & Son, Inc., 555 Grant St., Bridgeport, Conn. (B)
 Mott-Mohr Constr. Co., Inc., 15 Mead St., New Haven, Conn. (B)
 Mutual Constr. Co., Inc., 81 Read St., Bridgeport, Conn. (B)
 Packtor, Edw., Co., 462 Silas Deane Hwy., Wethersfield, Conn. (B)
 Paterson Constr. Co., Inc., 66 Anderson St., New Haven, Conn. (B)
 Poriss, Benjamin F., 1021 Asylum Ave., Hartford 5, Conn. (B)
 Poriss, S. C., Constr. Co., The, 54 Church St., Hartford, Conn. (B)
 Rice, Jos. N., Inc., 60 Peck St., P. O. Box 145, Sta. A, New Haven, Conn. (B)
 Schoolnick, Louis, Constr. Co., 49 Garden St., Hartford, Conn. (B)
 Smith Constr. Co., Inc., 101 Water St., Derby, Conn. (B)
 Sullivan, Frank P., Inc., 110 Tyler St., East Haven, Conn. (B)
 Tomlinson & Hawley, Inc., 472 North Ave., Bridgeport 6, Conn. (B)
 Torrington Bldg. Co., The, 187 Church St., Torrington, Conn. (B)
 Wadhams & May Co., The, 15 Lewis St., Hartford, Conn. (B)
 Wheeler, Earl C., 15 Lewis St., Hartford 3, Conn. (B)
 Wooding, C. F., Co., The, 43 Wallace Ave., Wallingford, Conn. (B)
 Zandonella, John, 70 Chase St., Bridgeport 6, Conn. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

7. DELAWARE**(a) ASSOCIATED GENERAL CONTRACTORS OF DELAWARE**

President—Frederic G. Krapf, 421 Orange St., Wilmington 1, Del.
Executive Vice President—F. E. B. McCann, c/o Allied Constr. Inds. of Delaware, Inc., 419 Orange St., Wilmington 1, Del.
Telephone: 7264

Bader, J. A., & Co., Inc., 923 Market St., Wilmington 7, Del. (B-H-Hvy)
 Bader, J. A., II, 1215 Gilpin Ave., Wilmington, Del. (B)
 Cantera Constr. Co., 1508 Pennsylvania Ave., Wilmington 6, Del. (B)
 Dangel's, David, Sons, 508 N. VanBuren St., Wilmington 3, Del. (B)
 DiSabatino & Raniere, 612 W. 9th St., Wilmington, Del. (B)
 Dougherty, C. J., & Sons, Inc., 600 Tatnall St., Wilmington 1, Del. (B)
 Eckman, Chas. A., Co., 1707 Broome St., Wilmington 35, Del. (B)
 Fontana, D. M., 112 A St., Wilmington, Del. (B)
 George & Lynch Co., M210 Delaware Trust Bldg., Wilmington, Del. (B-H-Hvy)
 Haddock, W. D., Constr. Co., P. O. Box 268, Wilmington 5, Del. (B)
 Healy, John E., & Sons, Inc., 707 Tatnall St., Wilmington 1, Del. (B)
 Julian, Jas., Constr. Co., 405 S. duPont Rd., Wilmington, Del. (B-H-Hvy)
 Julian, John, Constr. Co., 109 S. duPont Rd., Wilmington, Del. (B-H-Hvy)
 Krapf, Frederic G., 421 Orange St., Wilmington 1, Del. (B)
 Lynch, Harry S., Co., Inc., 715 Tatnall St., Wilmington 1, Del. (B)
 Nutter Constr. Co., 1315 Brandywine Blvd., Cragmere, Wilmington, Del. (B)
 Rupert Constr. Co., 3400 Lancaster Ave., Wilmington 22, Del. (B)
 Standard Bitulithic, Box 27, New Castle, Del. (B-H-Hvy)
 Van Sant Bros., Inc., 14 Ashley Pl., Wilmington, Del. (B)
 Wilson, H. P., DuPont Blvd. & State Rd., New Castle, Del. (B-H-Hvy)

8. DISTRICT OF COLUMBIA**(a) MASTER BUILDERS ASSOCIATION, INC.—DISTRICT OF COLUMBIA**

President—B. T. Rome, The Geo. Hyman Constr. Co., 1010 Vermont Ave., N. W., Washington 5, D. C.
Secretary-Treasurer—Randall C. Wyant, 1931 K St., N. W., Washington 6, D. C.
Telephone: District 1089
 American Constr. Co., Inc., 261 Constitution Ave., N. W., Washington 1, D. C. (B)
 Avery Constr. Co., Inc., 629 F St., N. W., Washington 4, D. C. (B)

Bahen, Jos. B., Constr. Co., Inc., 418 Randolph St., N. W., Washington 11, D. C. (B)
 Bank Bldg. & Equip. Corp. of America, 506 11th St., N. W., Washington 5, D. C. (B)
 Beauchamp, Victor R., Inc., 6837 4th St., N. W., Washington 12, D. C. (B)
 Chappell, W. M., Co., 1219 Good Hope Rd., S. E., P. O. Box 4740, Anacostia 20, D. C. (B)
 Cladny, M., Constr. Co., Inc., Barrister Bldg., 635 F St., N. W., Washington 4, D. C. (B)
 Consolidated Engr. Co., Inc., 20 E. Franklin St., Baltimore 2, Md. (B)
 Cramer-Vollmerhausen Co., Inc., 2601 Connecticut Ave., N. W., Washington 8, D. C. (B)
 Daniels, E. L., 1511 N. Quincy St., Arlington, Va. (B)
 Davis & Platt, Inc., 401 Butternut St., N. W., Washington 12, D. C. (B)
 Davis, Wick, Rosengarten Co., Inc., 613 15th St., N. W., Washington 5, D. C. (B)
 Day & Zimmermann, Inc., P. O. Box 37, Indian Head, Md. (B-Hvy)
 DuLaney, P. F., 216 C St., N. W., Washington 1, D. C. (B)
 Friel, Edw. B., Inc., 6230 3d St., N. W., Washington 11, D. C. (B)
 Grove Shepherd Wilson & Kruege, Inc., Securities Bldg., 1425 H St., N. W., Washington 5, D. C. (B)
 Gunnell Constr. Co., Inc., Tower Bldg., 14th & K Sts., N. W., Washington 5, D. C. (B)
 Hedin, J. D., Constr. Co., 2900 Newton St., N. E., Washington 18, D. C. (B)
 Hyman, Geo., Constr. Co., The, 1010 Vermont Ave., N. W., Washington 5, D. C. (B-Hvy)
 Irons & Reynolds, Inc., 1724 H St., N. W., Washington 6, D. C. (B)
 Jeffress-Dyer, Inc., 908 20th St., N. W., Washington 6, D. C. (B)
 Johnson, John A., & Sons, Inc., Occidental Bldg., 1411 Pennsylvania Ave., N. W., Washington 4, D. C. (B)
 Lipscomb, Wm. P., Co., Inc., 535 Woodward Bldg., Washington 5, D. C. (B)
 Martell, F. H., Co., Inc., 1023 20th St., N. W., Washington 6, D. C. (B)
 Martin, Geo. C., 6213 31st St., N. W., Washington 15, D. C. (B)
 McShain, John, Inc., 1501 N. Arlington Ridge Rd., Arlington, Va. (B-Hvy)
 Mohler Constr. Co., 1223 Connecticut Ave., N. W., Washington 6, D. C. (B)
 Mooney, W. E., Co., Inc., 3924 14th St., N. W., Washington 11, D. C. (B)
 Nebel, Jos. F., Co., 2140 P St., N. W., Washington 7, D. C. (B)
 Owens, T. Calvin, Inc., 2708 26th St., N. E., Washington 18, D. C. (B)
 Parkhill Constr. Co., Inc., 14th St. & Park Rd., N. W., Riggs Bank Bldg., Washington 10, D. C. (B)
 Prescott Constr. Co., Inc., 1307 W St., N. W., Washington 9, D. C. (B)
 Rogers & McGrath, 1221 Kenilworth Ave., N. E., Washington 19, D. C. (B)
 Skinker & Garrett, 1719 Eye St., N. W., Washington 6, D. C. (B)

Solomon, David, Inc., 4902 Asbury Lane, Bethesda 14, Md. (B)
 Spencer, Warren, Inc., 616 Pershing Dr., Silver Spring, Md. (B)
 Tester, John, & Son, Inc., 1620 2d St., S. W., Washington 4, D. C. (B)
 Tompkins, Chas. H., Co., 907 16th St., N. W., Washington 6, D. C. (B-Hvy)
 Tuckman-Barbee Constr. Co., Inc., 6230 3d St., N. W., Washington 11, D. C. (B)
 Turner Construction Co., 7400 Sheriff Rd., Fairmont Heights, Md. (B)
 Whitty Constr. Co., 1101 Vermont Ave., N. W., Washington 5, D. C. (B)
 Wohlgemuth, C., Jr., Rm. 608, McLachlen Bldg., Washington 1, D. C. (B)
 Zerkel Constr. Co., Inc., 16th & N. Arlington Ridge Rd., No. Box 233, Rosslyn Sta., Arlington 9, Va. (B)

Local Members

Corson & Gruman Company, 33d & Water Sts., N. W., Washington 7, D. C. (H)
 Standard Engr. Co., Inc., 2129 Eye St., N. W., Washington, D. C. (B)

9. FLORIDA**(a) NORTHEASTERN FLORIDA CHAPTER**

President—Ira Koger, O. P. Woodcock Co., 430 W. Monroe St., Jacksonville 2, Fla.
Secretary-Treasurer—L. M. Newkirk, A. D. Newkirk & Son, P. O. Box 5535, Jacksonville 7, Fla.
 Auchter, Geo. D., Co., The, 56th & Evergreen, Box 1193, Jacksonville 1, Fla. (B-H-Hvy)
 Clayton, A. L., Co., 2446 Dennis St., Box 2525, Jacksonville 4, Fla. (B)
 Cox, Fred M., 3602 St. Johns Ave., Jacksonville, Fla. (B)
 Dupree, Henry G., 1125 Kings Ave., Jacksonville, Fla. (B)
 Duval Engr. & Contr. Co., P. O. Box 1588, Jacksonville 1, Fla. (H)
 East Coast Constr. Co., 1514 Gary St., Jacksonville 7, Fla. (B)
 Foshee, D. O., Inc., 1561 La Rue Ave., Jacksonville 7, Fla. (B)
 Gallespie Constr. Co., 218 W. Church St., Jacksonville 2, Fla. (B)
 Hillyer & Lovan, Box 371, Jacksonville 1, Fla. (B-Hvy)
 Jacobs, S. S., Co., Box 4217, Jacksonville 1, Fla. (B-Hvy)
 Kenyon, E. C., 4276 Verona Ave., Jacksonville 5, Fla. (B)
 Newkirk, A. D., & Son, 1436 June St., Jacksonville, Fla. (B)
 Perry, Arthur F., Co., 1528 E. Adams St., Box 1577, Jacksonville, Fla. (B)
 Small, Jas. H., & Co., Box 4786, Jacksonville 1, Fla. (B)
 Smith, Ivy H., Co., P. O. Box 5098, Jacksonville 7, Fla. (B-H)
 Smith, Paul, Constr. Co., P. O. Box 2370, Jacksonville, Fla. (B)
 Smith, R. McDonald, 3867 Arden St., Jacksonville, Fla. (B)
 Woodcock, O. P., Co., 430 W. Monroe St., Jacksonville 2, Fla. (B)

FLORIDA—Continued

(b) SOUTH FLORIDA CHAPTER

President—M. R. Harrison, Jr., M. R. Harrison Constr. Corp., 5137 N. E. 2d Ave., Miami 37, Fla.

Executive Manager—Paul H. Hinds, 1113 Congress Bldg., Miami 32, Fla. Telephone: 3-5633 & 3-5237

Albert Constr. Co., DuPont Bldg., Rm. 1115 Miami, Fla. (B)

Anaconda Constr. & Engr. Co., 303 E. Las Olas Blvd., Ft. Lauderdale, Fla. (B)

Asphalt Paving Co., Not Inc., P. O. Box 786, Coral Gables, Fla. (H)

Barge-Thompson Co., 136 Ellis St., N. E., Atlanta 3, Ga. (B)

Belcher Oil Co., 1217 Biscayne Blvd., P. O. Box 1751, Miami 30, Fla. (B-H-Hvy-RR)

Brattbauer-Walker Co., 1480 N. E. 131st St., North Miami, Fla. (B)

Brewer Co. of Florida, Inc., The, 3810 N. W. 21st St., Miami, Fla. (H)

Brooks Paving Co., 5607 N. W. 27th Ave., Miami, Fla. (H-Hvy)

Bunnell, Geo. E., Inc., 15151 W. Dixie Hwy., Box 426, North Miami Beach, Fla. (Hvy)

DeGraff, Henry, & Son, 7160 N. W. 5th Pl., Miami, Fla. (B)

Deigaard & Preston Bldrs., Inc., 264 Giralda Ave., P. O. Box 733, Coral Gables 34, Fla. (B)

Duffey Constr. Co., Inc., 1395 N. W. 21st St., P. O. Box 405, Allapattah Sta., Miami, Fla. (B)

Fleming, Edw. M., Constr. Co., 4121 N. W. 25th St., Miami, Fla. (B)

Gooch, J. Y., Co., Inc., 1205 Congress Bldg., P. O. Box 2170, Miami, Fla. (B)

Graham, Angus W., Inc., 71 N. E. 21st St., Miami 37, Fla. (B)

Green, Edwin M., Inc., 775 N. W. 21st St., Miami 45, Fla. (B)

Hamilton Constr. Co., 7541 N. E. 3d Pl., Miami, Fla. (B)

Harrison, M. R., Constr. Corp., 5137 N. E. 2d Ave., Miami 37, Fla. (B)

Howland, Fred, Inc., 1451 N. W. 20th St., Miami 6, Fla. (B)

James, T. J., Constr. Co., Inc., 1700 N. W. 119th St., Miami 47, Fla. (H-Hvy)

Kroetz, Wilbur L., Inc., 534 N. E. 6th Ave., P. O. Box 1539, Ft. Lauderdale, Fla. (B)

Leifert Constr. Co., 2401 N. W. 2d Ave., Miami, Fla. (B)

M & M Dredg. & Constr. Co., P. O. Box 627, Riverside Sta., Miami, Fla. (Hvy)

Meyers, B. E., Inc., 365 Greco Ave., Coral Gables, Fla. (B)

Orr, John B., Inc., 485 N. W. 54th St., Drawer "R", Little River Sta., Miami 38, Fla. (B)

Powell Bros., Inc., 16 S. W. 1st Ave., P. O. Box 281, Ft. Lauderdale, Fla. (H-Hvy)

Price, W. T., Dredg. Corp., 3200 S. W. 27th Ave., Miami 33, Fla. (H-Hvy)

Reed Constr. Corp., 1345 20th St., Miami Beach 39, Fla. (Hvy)

Roberts, Lyle, Inc., 4033 Ponce de Leon Blvd., Coral Gables, Fla. (B)

Rooney, Frank J., Inc., 5880 N. E. 4th Ave., Miami 38, Fla. (B)

S & B Constr. Co., 224 Palermo Ave., Coral Gables, Fla. (B)

St. John Co., The, 295 N. E. 61st St., Miami 37, Fla. (B)

Shinn Constr. Co., 12345 W. Dixie Hwy., North Miami, Fla. (B)

Sparks Constr. Co., Inc., 4565 Ponce de Leon Blvd., Coral Gables, Fla. (B)

Star Constr. Co., 1440 N. W. 21st St., Miami, Fla. (B)

Stobs Bros. Constr. Co., 7010 N. E. 4th Ct., Miami, Fla. (B)

Stockton, C. T., Inc., 660 N. W. 54th St., Miami, Fla. (H)

Stow, Mulford, 274 N. W. 54th St., Miami, Fla. (B)

Taylor Constr. Co., 2875 N. LeJeune Rd., Miami, Fla. (B)

Troup Bros., Inc., 4152 S. Dixie Hwy., P. O. Box 168, Coconut Grove Sta., Miami 33, Fla. (H-Hvy)

Turchin, Robt. L., Inc., 1835 Purdy Ave., Miami Beach, Fla. (B)

Wheeler, C. F., Bldr., 810 N. W. 72d St., Miami, Fla. (B)

Willits, Perry E., Inc., 151 N. E. 62d St., Miami, Fla. (B)

Witters Constr. Co., Inc., P. O. Box 6, Riverside Sta., Miami, Fla. (B)

(c) FLORIDA WEST COAST CHAPTER

President—Roy E. Secord, Paul Smith Constr. Co., 310 N. Rome Ave., P. O. Box 1912, Tampa 6, Fla.

Secretary—Judson Edwards, Chamber of Commerce Bldg., P. O. Box 138, Tampa 1, Fla.

Telephone: 2-7643

Armstrong, W. H., Co., Inc., 357 Scotland St., Dunedin, Fla. (H)

B & W Constr. Co., Inc., 629 Franklin St., Clearwater, Fla. (B)

Bay, Harry, Constr. Co., Inc., 910 1st National Bank Bldg., Tampa 2, Fla. (B)

Blann-Lane Constr. Co., 4405 N. Armenia Ave., Tampa 7, Fla. (B)

Boyce Co., 605 Pennsylvania Ave., Clearwater, Fla. (Hvy)

Clair-Mel Bldrs., Inc., 4002 Swann Ave., Tampa 9, Fla. (B)

Clarson, R. E., Inc., 2000 13th Ave., No., P. O. Box 387, St. Petersburg, Fla. (B)

Cone Bros. Contr. Co., Caesar St. & Cumberland, P. O. Box 652, Tampa 1, Fla. (H)

Consolidated Constr. Co., Dale Mabry Hwy. North of Overpass, P. O. Box 2168, Tampa 1, Fla. (B)

Dawkins, C. T., 420 S. Rome Ave., Tampa 6, Fla. (B-Hvy)

Ellis-Thompson Constr. Co., Inc., P. O. Box 1132, Tampa 1, Fla. (B)

Ewell Engr. & Contr. Co., 1248 New Tampa Hwy., P. O. Box 791, Lakeland, Fla. (B-H)

Fielland, C. A., Inc., 107 N. Rome Ave., Tampa 6, Fla. (B)

Foster, M. H., Constr. Co., Inc., Box 10232, Tampa 1, Fla. (B)

Fox & Fox, 2620 8th Ave., No., St. Petersburg, Fla. (B)

Hammer Bldg. & Supply Co., Inc., 1302 Grand Central Ave., Tampa 6, Fla. (B)

Harvard Constr., Inc., 943 Tyrone Blvd., St. Petersburg, Fla. (B)

Haworth, Albert, 1103 Eva St., P. O. Box 2015, Tampa 1, Fla. (B)

Hendry Bldg. Co., 1400 2d Ave., No., St. Petersburg, Fla. (B)

Hennessy, A. P., & Sons, Inc., 2300 22d St., No., St. Petersburg, Fla. (B)

Hubbard Constr. Co., P. O. Box 713, Orlando, Fla. (B-H-Hvy)

International Constr. Corp., 3825 Henderson Blvd., Tampa 9, Fla. (B)

Keys, Clyde J., 20 11th St., So., St. Petersburg, Fla. (B)

Mariani-O'Brien, Inc., P. O. Box 1367, St. Petersburg, Fla. (B-Hvy)

McAnulty, Inc., P. O. Box 240, Bradenton, Fla. (B)

Mills & Jones, Inc., P. O. Box 264, 2260 4th Ave., So., St. Petersburg, Fla. (B)

Owens, J. B., 3900 E. Broadway St., Tampa 5, Fla. (Hvy)

Pemberton Bldrs., Inc., P. O. Box 90, Plant City, Fla. (B)

Ranon & Jimenez, 809 E. Oak Ave., Tampa 2, Fla. (B)

Saine Co., P. O. Box 2107, Orlando, Fla. (Hvy)

Sapp, J. Hilbert, Inc., 1905 N. Orange Ave., Orlando, Fla. (B)

Smith, Paul, Constr. Co., 310 N. Rome Ave., P. O. Box 1912, Tampa 6, Fla. (B)

Stansfield Constr. Co., 2401 Horatio St., Tampa 6, Fla. (B-Hvy-RR)

Stephens, J. S., & Sons, 902 N. Rome Ave., Tampa 6, Fla. (B)

Van Eyck, T., 7009 Central Ave., Tampa 4, Fla. (B)

White Constr. & Engr. Co., 300 22d St., So., St. Petersburg, Fla. (Hvy)

(d) NORTHWEST FLORIDA CHAPTER

President—W. O. Chavis, Chavis Constr. Co., 3107 N. Davis St., Box 2145, Pensacola, Fla.

Secretary—Will J. Davis, 502 Thiesen Bldg., Pensacola, Fla. Telephone: 8-0551

Callaway Constr. Co., 908 Barraucas Ave., Box 4566, Warrington, Fla. (B)

Chavis Constr. Co., 3107 N. Davis St., Box 2145, Pensacola, Fla. (B)

Dyson & Co., 806 W. Romana St., P. O. Box 22, Pensacola, Fla. (B)

Fulghum, Kenneth, Inc., Palafox Hwy., P. O. Box 643, Pensacola, Fla. (B)

Gulf States Development Co., 908 Barraucas Ave., Box 828, Warrington, Fla. (B)

Oseola Constr. Co., Mobile Hwy., P. O. Box 788, Pensacola, Fla. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

FLORIDA—Continued

Parda, T. J., 1215 N. DeVillers, Box 523, Pensacola, Fla. (B)
 Soule Constr. Co., 1313 N. "O" St., P. O. Box 1725, Pensacola, Fla. (B)
 White Constr. Co., P. O. Box 2037, Pensacola, Fla. (B)

(e) FLORIDA EAST COAST CHAPTER

President—P. C. Lissenden, P. C. Lissenden Co., Inc., P. O. Box 88, Guaranty Bldg., West Palm Beach, Fla.
Executive Manager—Wm. P. Bobb, Jr., 340 Royal Palm Way, Palm Beach, Fla.
Telephone: 2-2364

Arnold Constr. Co., 7 Murray Bldg., Palm Beach, Fla. (B)
 Birdsall, John H., Jr., 338 Royal Palm Way, Palm Beach, Fla. (B)
 Brown, Robt. C., 511 25th St., Box 211, Riviera Beach, Fla. (B)
 Butler & Oenbrink, 207 Royal Palm Way, Palm Beach, Fla. (B)
 Cleary Bros. Constr. Co., P. O. Box 6815, West Palm Beach, Fla. (H-Hvy)
 Coastal Properties Corp., P. O. Box 6095, West Palm Beach, Fla. (B)
 Hillier, Don, & Sons, Inc., P. O. Box 507, Pahokee, Fla. (B)
 Latham Constr. Co., 1400 Congress Ave., P. O. Box 165, West Palm Beach, Fla. (Hvy)
 Lissenden, P. C., Co., Inc., P. O. Box 88, Guaranty Bldg., West Palm Beach, Fla. (B)
 McLaren Bros. Constr. Co., 518 Comeau Bldg., West Palm Beach, Fla. (B)
 Sheldon, R. W., Constr. Co., P. O. Box 925, West Palm Beach, Fla. (B)

(f) FLORIDA CENTRAL EAST COAST CHAPTER

President—B. P. Slater, Slater Constr. Co., Inc., 229B Cardinal Dr., Ormond Beach, Fla.
Secretary—Robert Grahn, Security Constr. Co., 238 N. Coates St., Daytona Beach, Fla.
Telephone: 6430
 Dyson, F. A., 201 W. 17th St., Sanford, Fla. (B)
 Guerin & Jacobus, Inc., Bldg. 11, Melbourne Airport, P. O. Box 237, Melbourne, Fla. (B)
 McCracken & Berry Constr. Co., P. O. Box 151, Ormond Beach, Fla. (B)
 Patrick, W. W., 224½ S. Beach St., Daytona Beach, Fla. (B)
 Puckett, Taylor E., 815 Daytona Ave., Holly Hill, Fla. (B)
 Quillian's Concrete, P. O. Box 68, Holly Hill, Fla. (B)
 Security Constr. Co., 238 N. Coates St., Daytona Beach, Fla. (B)
 Slater Constr. Co., Inc., 229B Cardinal Dr., Ormond Beach, Fla. (B)
 Wickham & Jessup Constr. Co., Avocado St., Box 878, Eau Gallie, Fla. (B)

10. GEORGIA

(a) GEORGIA BRANCH

President—W. M. Wheeler, J. A. Jones Constr. Co., Inc., 133 Ellis St., N. E., Atlanta, Ga.
Executive Secretary—Hugh W. Roberts, Builders Bldg., 163 Harris St., N. W., Atlanta, Ga.
Telephone: Walnut 5941

Abrams, A. R., Inc., P. O. Box 1969, 362 Jones Ave., N. W., Atlanta, Ga. (B)
 Adair, C. A., & Co., 73 W. Peachtree Pl., N. W., Atlanta 3, Ga. (B)
 Alexander Constr. Co., 496 Plum St., N. W., Atlanta, Ga. (B)
 Archer Bros., Inc., 734 Boulevard, N. E., Atlanta, Ga. (B)
 Arco Co., 510 Edgewood Ave., N. E., Atlanta, Ga. (B)
 Artley Co., 504 E. Bay St., Savannah, Ga. (B)
 Barge-Thompson Co., 136 Ellis St., N. E., Atlanta 3, Ga. (B)
 Batson-Cook Co., Inc., P. O. Box 151, West Point, Ga. (B)
 Beck, Henry C., Co., 513 1st National Bank Bldg., Atlanta 3, Ga. (B)
 Beckham, E. M., Constr. Co., Perry, Ga. (H-Hvy)
 Beers Constr. Co., 70 Ellis St., N. E., Atlanta 3, Ga. (B)
 Beers, Gilbert, 489 Bishop St., N. W., Atlanta, Ga. (B)
 Black, J. J., & Co., 575 Plum St., N. W., Atlanta 3, Ga. (B)
 Bowen, R. A., Constr. Co., P. O. Box 1164, Macon, Ga. (B-H)
 Bradfield, J. P., 218 Hill Bldg., Columbus, Ga. (B)
 Bray, J. N., Co., P. O. Box 528, Valdosta, Ga. (B)
 Briggs, A. R., Constr. Co., 526 Arch St., Macon, Ga. (B)
 Brittain, T. C., Co., 204 Lawrence Bldg., E. Court Sq., Decatur, Ga. (B)
 Byck-Worrell Constr. Co., Inc., 318 E. Bay St., P. O. Box 1330, Savannah, Ga. (B)
 Capital Constr. Co., 167 Harris St., N. W., Atlanta 3, Ga. (B)
 Carroll Constr. Co., 166 Courtland St., N. E., Atlanta, Ga. (B)
 Caskey, G. M., & Son, 217 Thomas St., Athens, Ga. (B)
 Central Constr. Co., 125 W. Ponce De Leon Ave., Decatur, Ga. (B)
 Christian & Bell Co., 664 Spring St., N. W., Atlanta 3, Ga. (B)
 Concrete Bldrs., Inc., 800 East Ave., N. E., Atlanta, Ga. (B)
 Concrete Constr. Co., 137 Boulevard, N. E., Atlanta, Ga. (Hvy)
 Conn Structures, 209-12 Whitehead Bldg., Atlanta, Ga. (B)
 Cornell-Young Co., P. O. Box 96, Macon, Ga. (H-Hvy-RR)
 Dalon Constr. Co., Inc., P. O. Box 3284, Station F, Atlanta, Ga. (H)
 Daniel, Carroll, Constr. Co., P. O. Box 435, Gainesville, Ga. (B)
 Daniel Lumber Co., La Grange, Ga. (B)
 deGive-Dunham & O'Neill, 617 Grand Bldg., Atlanta, Ga. (B)
 Delta Constr. Co., 1049 Albany Ave., P. O. Box 4, Waycross, Ga. (B)
 Donnellan, G. P., 274 Buckhead Ave., N. E., Atlanta, Ga. (B)
 Flagler Co., The, 305 Techwood Dr., Atlanta, Ga. (B)
 Georgia Southern Constr. Co., 3330 Vineville Ave., Macon, Ga. (B)
 Griffin Constr. Co., 26 3d St., N. W., Atlanta 3, Ga. (B-RR)
 Griffith & Moorehead, 33 Hunter St., S. W., Rm. 212, Atlanta, Ga. (B)
 H & H Constr. & Supply Co., Thomasville, Ga. (B)
 Hadden, C. Frank, P. O. Box 792, Albany, Ga. (B)
 Hall Constr. Co., 664 Spring St., N. W., Atlanta, Ga. (B)
 Hallman Bros., 1155-57 W. Peachtree St., N. E., Atlanta, Ga. (B)
 Hardaway Constr. Co., P. O. Box 1360, Columbus, Ga. (H-Hvy)
 Hardin, Ira H., Co., 174 Mills St., N. W., Atlanta, Ga. (B)
 Hennigh, H. E., P. O. Box 825, Cedartown, Ga. (B)
 Herrman Constr. Co., 800 Forrest St., N. W., Atlanta, Ga. (B)
 Ivey Bros., Constr. Co., 3181 Peachtree Rd., N. E., Atlanta, Ga. (B)
 Jackson & Brittain, 224 W. Bay St., Savannah, Ga. (B)
 Jerome Constr. Co., 14 N. Abercorn St., Savannah, Ga. (B)
 Johnson, John A., & Sons, Inc., 206 Rogers St., N. E., Atlanta 3, Ga. (B)
 Johnson & Johnson Constr. Co., 401 West Bldg., Rome, Ga. (B)
 Johnston, Maynard, & Co., 2106 Belvedere Dr., N. W., P. O. Box 111, Sta., D, Atlanta, Ga. (B)
 Jones, J. A., Constr. Co., Inc., 133 Ellis St., N. E., Atlanta, Ga. (B-H-Hvy-RR)
 Jones, Jiroud, & Co., 205 Walton Bldg., Atlanta 3, Ga. (B)
 Kesling, Paul H., P. O. Box 4, Waycross, Ga. (B)
 Lambert, M. T., Co., 200 Peachtree Circle, N. E., Atlanta, Ga. (B-Hvy)
 Lee, Ray M., Co., 1004 Edgewood Ave., N. E., Atlanta, Ga. (B)
 Lewis, T. S., Jr., & Co., Inc., 1205 Bull St., P. O. Box 1703, Savannah, Ga. (B)
 Mathis Constr. Co., 1525 S. Lumpkin St., P. O. Box 1323, Athens, Ga. (B)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 McCall, R. R., Co., 298 S. Stevens St., Valdosta, Ga. (B)
 McRae, Farquhar, 11 Arcade Bldg., Savannah, Ga. (B)
 Meador Constr. Co., 10 Harris St., N. W., Atlanta 3, Ga. (H-Hvy)
 Mion Constr. Co., 377 Techwood Dr., N. W., Atlanta 1, Ga. (B-H)
 Mobley, Clarence, Contr. Co., 630 11th St., Augusta, Ga. (B)
 Modern Repair Co., 74 Alexander St., N. W., Atlanta, Ga. (B)

GEORGIA—Continued

Modernization Constr. Co., 305 Techwood Dr., N. W., Atlanta, Ga. (B)
 Munn, Geo. R., 526 Plum St., N. W., Atlanta 3, Ga. (B)
 Newbanks, Merrill W., Co., 125 Merritts Ave., N. E., Atlanta, Ga. (B)
 Newsome, Douglas E., 218 Flowers Bldg., Columbus, Ga. (B)
 Nonnemaker-Clayton Constr. Co., 70 Houston St., N. E., Atlanta 3, Ga. (B)
 P. & W. Constr. Co., Inc., 756 Hurt Bldg., Atlanta, Ga. (H)
 Pardue Constr. Co., Commerce, Ga. (B)
 Pearce, T. H., Co., 416 Edgewood Circle, Columbus, Ga. (B)
 Pew, Arthur, Constr. Co., 3110½ Roswell Rd., N. W., Atlanta, Ga. (B-Hvy)
 Pound, Murphey, Constr. Co., P. O. Box 172, Columbus, Ga. (B)
 Raymond Concrete Pile Co., 1523 Healey Bldg., Atlanta, Ga. (H-Hvy-RR)
 Roberts, J. P., 203 E. 1st St., P. O. Box 327, Rome, Ga. (B)
 Rose, W. P., Constr. Co., 280 Whiteford Ave., N. E., Atlanta, Ga. (B-H)
 Rutland Contr. Co., 1401 E. Ponce De Leon Ave., P. O. Box 24, Decatur, Ga. (H)
 Sanford, A. C., Inc., P. O. Box 1229, Albany, Ga. (B)
 Sanders, Marthame, & Co., 800 East Ave., N. E., Atlanta, Ga. (B)
 Scott Constr. Co., Thomasville, Ga. (H-Hvy)
 Shaw, M. E., Constr. Co., P. O. Box 871, Macon, Ga. (B)
 Sheridan-Punaro Co., 645 Plum St., P. O. Box 1333, Macon, Ga. (B)
 Smalling's, R. H., Sons, 301 Bibb Bldg., Macon, Ga. (B)
 Smith, R. T., 982 Lullwater Rd., N. E., Atlanta, Ga. (H)
 Sockwell Co., 156 Rogers St., N. E., Atlanta, Ga. (Hvy)
 Southern Constr. Co., Inc., Daniel Field, Augusta, Ga. (B)
 Stillwell Constr. Co., P. O. Box 367, Macon, Ga. (B)
 Stockton, J. C., & Son, P. O. Box 2014, Hill Sta., Augusta, Ga. (B)
 Strong, Walter H., 701 E. Duffy St., Savannah, Ga. (B)
 Strother-Barge Co., 189 Cain St., N. E., Atlanta, Ga. (B)
 Swift Constr. Co., Swift Bldg., P. O. Box 1059, Columbus, Ga. (B)
 Thompson & Street Co., 72 11th St., N. E., Atlanta, Ga. (B)
 Tinker, H. G., P. O. Box 432, Macon, Ga. (B-H-Hvy)
 Union Constr. Co., P. O. Box 1584, Atlanta, Ga. (H-Hvy-RR)
 Van Winkle & Co., Rm. 573, 805 Peachtree St. Bldg., Atlanta, Ga. (B)
 Wesley & Co., Inc., 285 Hunnicutt St., N. W., Atlanta, Ga. (B)
 Wey-Leonard Constr. Co., 200 Alexander St., N. W., Atlanta, Ga. (B)
 Whalley Constr. Co., Montgomery & 58th Sts., Savannah, Ga. (B)

ID. IDAHO

(a) IDAHO BRANCH

President—W. B. Curtis, Morrison-Knudsen Co., Inc., 319 Broadway, Box 450, Boise, Idaho
 Manager—J. T. R. McCorkle, Hotel Boise, Boise, Idaho
 Telephone: 2868
 Arrington Constr. Co., P. O. Box 831, Idaho Falls, Idaho (B-Hvy)
 Aslett Constr. Co., Box 799, Twin Falls, Idaho (H)
 Asphalt Paving & Constr. Co., Inc., 3206 Pleasanton Ave., Boise, Idaho (B)
 Babbitt Constr. Co., Inc., 1620 Taggart St., Boise, Idaho (B)
 Barnhart & Wheeler, P. O. Box 1107, Pocatello, Idaho (H-Hvy)
 Bobier Constr. Co., Box 367, Twin Falls, Idaho (B)
 Brennan, J. W., Box 507, Pocatello, Idaho (B-Hvy)
 Burgraf Constr. Co., Box 397, Idaho Falls, Idaho (H)
 C-L Elec. Co., 410 S. Main St., Pocatello, Idaho (Hvy)
 Cahoon, W. R., Box 507, Pocatello, Idaho (B)
 Commercial Bldrs., Inc., Box 302, Moscow, Idaho (B-H-Hvy-RR)
 Detweiler Bros., Inc., P. O. Box 870, Twin Falls, Idaho (Hvy)
 Duffy, Warren C., 404 12th Avenue Rd., Nampa, Idaho (B)
 Fulton, E. A., 2610 Davis St., Boise, Idaho (B)
 Goodwin Constr. Co., Hopkins Bldg., Box 791, Blackfoot, Idaho (B-H-Hvy)
 Halvorson Constr. Co., Salem, Oreg. (H-Hvy)
 Hess, Marion J., P. O. Box 247, Malad, Idaho (H-Hvy)
 Holmes Constr. Co., Rt. 1, Heyburn, Idaho (H)
 Hoops Constr. Co., Box 431, Twin Falls, Idaho (H-Hvy)
 Horn, Henry L., P. O. Box 293, Connell, Wash. (Hvy)
 Idaho Constrs., Inc., 1311 N. 25th, Boise, Idaho (H-Hvy)
 Intermountain Bldrs., Inc., P. O. Box 506, Caldwell, Idaho (B)
 Intermountain Plumbing Co., 1322 Grove St., P. O. Box 1652, Boise, Idaho (B-Hvy)
 Kiewit, Peter, Sons' Co., P. O. Box 875, Sheridan, Wyo. (H-Hvy)
 Kloepper & Gramkow, 416 S. 6th St., Boise, Idaho (B)
 Lauch, C. B., Constr. Co., Box 2559, Boise, Idaho (B)
 Marrazzo, Tony, Box 876, Boise, Idaho (H)
 Martin Constr. Co., 502 Idaho Bldg., P. O. Box 2614, Boise, Idaho (B-Hvy)
 McCorkle, Tom, Constr. Co., 3001 Idaho St., Box 2578, Boise, Idaho (H)
 McNeel, H. J., Inc., 1024 Arthur St., Caldwell, Idaho (B)
 Morrison-Knudsen Co., Inc., 319 Broadway, Box 450, Boise, Idaho (H-Hvy-RR)
 Mountain States Constr. Co., Inc., Hwy. 30, Pocatello, Idaho (H-Hvy)

Olson, Jack C., Lorenzo, Idaho (B-H-Hvy)
 Pickett & Nelson, P. O. Box 755, Idaho Falls, Idaho (H)
 Quinn-Robbins Co., Inc., 703 S. 16th St., Boise, Idaho (H)
 Read, Fred W., Rt. 3, Twin Falls, Idaho (B)
 Reed, Duffy, Constr. Co., Box 1092, Twin Falls, Idaho (H)
 Reynolds & Walker, Inc., Box 363, Twin Falls, Idaho (B)
 Terteling, J. A., & Sons, Inc., P. O. Box 1428, Boise, Idaho (B-H-Hvy-RR)
 Triangle Bldg. Co., Inc., 429 B St., Idaho Falls, Idaho (B-Hvy)
 Triangle Constr. Co., 3507 Crescent Rim Dr., Boise, Idaho (H-Hvy)
 Twin Falls Constr. Co., Box 1081, Twin Falls, Idaho (H)
 Valley Crushing Co., P. O. Box 863, Boise, Idaho (H)
 Vernon Bros. Co., Box 1787, Boise, Idaho (B-Hvy)
 Watkins, C. W., & Son, P. O. Box 1786, Boise, Idaho (B)
 Western Constr. Co., Box 628, Pocatello, Idaho (H)
 Wise, J. H., & Son, 424 Broadway, Boise, Idaho (B)
 Woodall Bros., Box 246, Eagle, Idaho (H)

12. ILLINOIS

(a) CHICAGO BUILDERS' CHAPTER

President—David B. Johnson, Chas. B. Johnson & Son, 122 S. Michigan Blvd., Chicago 3, Ill.
 Secretary—H. M. Stanton, Builders Bldg., 228 N. LaSalle St., Chicago 1, Ill.
 Telephone: Franklin 2-4480
 Ahern, Wm. S., Constr. Co., 159 E. Chicago Ave., Chicago 11, Ill. (B)
 Albrecht, E. J., Co., 2626 W. 26th St., Chicago 8, Ill. (B)
 Anderson, J. Emil, & Son, 1809 Balmoral Ave., Chicago 40, Ill. (B)
 Blauner Constr. Co., 208 N. Wells St., Chicago 6, Ill. (B)
 Boyle, M. J., & Co., 2480 N. Elston Ave., Chicago 47, Ill. (B-Hvy)
 Brockob, R. L., Constr. Co., 815 S. Cicero Ave., Chicago 44, Ill. (B)
 Builders Co., The, 700 N. State Bldg., 2 W. Huron St., Chicago 10, Ill. (B)
 Bulley & Andrews, 1755 W. Armitage Ave., Chicago 22, Ill. (B)
 Carroll Constr. Co., 333 N. Michigan Ave., Chicago 1, Ill. (B)
 Coath & Goss, Inc., 5103 W. Lake St., Chicago 44, Ill. (B)
 Continental Constr. Co., 340 N. Central Ave., Chicago 44, Ill. (B)
 Dahl-Stedman Co., 7 S. Dearborn St., Chicago 3, Ill. (B)
 Ellington-Miller Co., 25 E. Jackson Blvd., Chicago 4, Ill. (B-RR)
 Engineering Contr. Corp., 173 W. Madison St., Chicago 3, Ill. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

ILLINOIS—Continued

Ericsson, Henry, Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Federal Constrs., Inc., 173 W. Madison St., Chicago 3, Ill. (B)
 FitzSimons & Connell Dredge & Dock Co., 10 S. LaSalle St., Chicago 3, Ill. (B-Hvy)
 Fuller, George A., Company, 111 W. Washington St., Chicago 2, Ill. (B)
 Goss, Wm. R., Co., 8316 S. Ellis Ave., Chicago 19, Ill. (B)
 Greene & Gust Co., 1635 Grass St., Chicago 13, Ill. (B)
 Griffiths, John, & Son Constr. Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Haigh, Jos., & Sons Co., 38 S. Dearborn St., Chicago 3, Ill. (B)
 Haynes, C. W., Co., 135 S. LaSalle St., Chicago 3, Ill. (B)
 Herlihy Mid-Continent Company, 135 S. LaSalle St., Chicago 3, Ill. (B)
 Iber, C., & Sons, P. O. Box 899, Peoria 1, Ill. (B)
 Jackson, A. L., Co., 161 E. Erie St., Chicago 11, Ill. (B)
 Johnson, Chas. B., & Son, 122 S. Michigan Blvd., Chicago 3, Ill. (B)
 Johnson, Geo. D., Co., 420 5th Ave., Peoria 1, Ill. (B)
 Kaiser-Ducett Co., 80 E. Jackson Blvd., Chicago 4, Ill. (B)
 Kinnare Corp., The, 2816 W. Monroe St., Chicago 12, Ill. (B)
 Kralh Constr. Co., 350 N. Clark St., Chicago 10, Ill. (B)
 LaSalle Constr. Co., 343 S. Dearborn St., Chicago 4, Ill. (B)
 Leonard Constr. Co., 37 S. Wabash Ave., Chicago 3, Ill. (B)
 Lincoln, Martin P., Co., 5555 Sheridan Rd., Chicago 40, Ill. (B)
 Lynch, W. J., Co., 1 N. LaSalle St., Chicago 2, Ill. (B)
 Macdonald Engr. Co., 188 W. Randolph St., Chicago 1, Ill. (B)
 Marboefer, E. H., Jr., Co., 505 N. LaSalle St., Chicago 10, Ill. (B)
 McHugh, Jas., Constr. Co., 6449 S. South Park Ave., Chicago 37, Ill. (B)
 Meyne, Gerhardt F., Co., 7 S. Dearborn St., Chicago 3, Ill. (B)
 Midland Constrs., Inc., 222 W. Adams St., Chicago 6, Ill. (B)
 Missner Constr. Co., 2940 N. Campbell Ave., Chicago 18, Ill. (B)
 Montague Constr. Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Nielsen, S. N., Co., 3059 Augusta Blvd., Chicago 22, Ill. (B)
 Olson, Sherman, Inc., 600 W. Jackson Blvd., Chicago 6, Ill. (B)
 O'Neil, W. E., Constr. Co., 2751 N. Clybourn Ave., Chicago 14, Ill. (B)
 Permanent Constr. Co., 208 S. LaSalle St., Chicago 4, Ill. (B)
 Perry Constr. Co., 251 W. 79th St., Chicago 20, Ill. (B)
 Sherry-Richards Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Simmons, J. L., Company, Inc., 185 N. Wabash Ave., Chicago 1, Ill. (B)
 Snyder, J. W., Co., 397 N. Michigan Ave., Chicago 1, Ill. (B)

Sollitt, Geo., Constr. Co., 109 N. Dearborn St., Chicago 2, Ill. (B)
 Strandberg, L. B., & Son Co., 608 S. Dearborn St., Chicago 5, Ill. (B-H)
 Strandberg, Stewart O., Co., 134 S. LaSalle St., Chicago 3, Ill. (B-Hvy)
 Thorgersen & Erickson Co., 228 N. LaSalle St., Chicago 1, Ill. (B)
 Tully, John C., Co., 33 N. LaSalle St., Chicago 2, Ill. (B-Hvy)
 Turner Construction Co., 105 W. Adams St., Chicago 3, Ill. (B)
 W-M Corp., 608 S. Dearborn St., Chicago 5, Ill. (B-Hvy-RR)
 Young & Sons Constr. Co., Inc., 7553 Cregier Ave., Chicago 49, Ill. (B)

(b) ASSOCIATED BUILDING CONTRACTORS OF ROCKFORD, ILLINOIS, INC.

President—Hugo Linden, Linden & Sons, Inc., 1102 10th St., Rockford, Ill.
Vice President—Elmer A. Schmeling, E. W. Schmeling & Sons, Inc., 1031 School St., Rockford, Ill.
Secretary-Treasurer—Mrs. Clara M. Miller, 203 Gateway Bldg., 121 7th St., Rockford, Ill.
Telephone: 3-8513
 Glass Constr. Co., P. O. Box 47, Belvidere, Ill. (B)
 Hokanson & Bloom, 507 N. Chicago Ave., Rockford, Ill. (B)
 Holm-Page Co., The, 2117 Kishwaukee St., Rockford, Ill. (B)
 Holmquist, F. E., P. O. Box 1541, 514 Warren Ave., Rockford, Ill. (B)
 Larson, Gust G., & Sons, Inc., 1201 12th St., Rockford, Ill. (B)
 Linden & Sons, Inc., 1102 10th St., Rockford, Ill. (B)
 Lundin & Grip, Inc., 1203 22d St., Rockford, Ill. (B)
 Pearce, Frank S., Co., 115 N. Court St., Rockford, Ill. (B)
 Scandrolis Constr. Co., 823 N. Madison St., Rockford, Ill. (B)
 Schmeling, E. W., & Sons, Inc., 1031 School St., Rockford, Ill. (B)
 Security Bldg. Co., Inc., 717 E. Jefferson St., Rockford, Ill. (B)
 Sjoström & Sons, Inc., 1718 7th Ave., Rockford, Ill. (B)

(c) ASSOCIATED GENERAL CONTRACTORS OF ILLINOIS

President—J. F. Gallagher, Gallagher Asphalt Co., Inc., P. O. Box 173, Thornton, Ill.
Executive Secretary—Milo P. Flickinger, 319½ S. 6th St., P. O. Box 377, Springfield, Ill.
Telephone: 5746
 Anderson Bros., 1700 Seminary St., P. O. Box 1571, Rockford, Ill. (H-Hvy)
 Arrow Petroleum Co., 4811 S. Harlem Ave., Clearing Sta., Chicago 38, Ill. (B-Hvy)
 Bates & Rogers Construction Corp., 690 W. Jackson Blvd., Chicago 6, Ill. (Hvy-RR)
 Berenz & Son Asphalt Co., 500 E. Bell St., Bloomington, Ill. (H-Hvy)

Bremer, J. C., 928 S. Main, Hillsboro, Ill. (B-H-Hvy)
 Bridges Paving Co., 1411 Central Industrial Dr., St. Louis 10, Mo. (H-Hvy)
 Burch Constr. Co., Washington Bldg., Madison 3, Wis. (H-Hvy)
 Burner, J. R., Oblong, Ill. (H-Hvy)
 Cameron, Joyce & Co., 19 S. 7th St., Keokuk, Iowa (H-Hvy)
 Central Engr. Co., 2531 Rockingham Rd., P. O. Box 838, Davenport, Iowa (B-H-Hvy)
 Champaign Asphalt Co., 310 E. Bradley Ave., Champaign, Ill. (H)
 Chism & Miller Constr. Co., S. 66 Belt Line, P. O. Box 1338, Springfield, Ill. (H-Hvy)
 Clark Bros. Co., 309 S. Jefferson Ave., Peoria 2, Ill. (H-Hvy)
 Collins-Bruley Constr. Co., P. O. Box 228, Decatur 6, Ill. (H-Hvy)
 Cullinan, R. A., & Son, Tremont, Ill. (H)
 Danville Constr. Co., P. O. Box 223, 21 W. Harrison St., Danville, Ill. (H)
 Denny, Dale, Constr. Co., 507 S. Green St., Anna, Ill. (H-Hvy)
 Devine, R. P., Kunkel Bldg., Watsika, Ill. (H)
 Edwardsville Constr. Co., Bank of Edwardsville Bldg., Edwardsville, Ill. (H-Hvy)
 Ellison Constr. Co., P. O. Box 53, Carthage, Ill. (H)
 Ernest Asphalt Sales Co., 320 N. 4th St., St. Louis 2, Mo. (H)
 Feutz, Frank C., Co., 901 Tenbroeck St., Paris, Ill. (H-Hvy)
 Fleming & Kilgo Constr. Co., P. O. Box 191, (old St. Louis Rd.), East Alton, Ill. (H-Hvy)
 Ford, R. W., 704 S. Market St., Marion, Ill. (H-Hvy)
 Franklin Asphalt Co., P. O. Box 155, Benton, Ill. (H)
 Freeman, Jesse H., Inc., 1608½ 5th Ave., Moline, Ill. (H-Hvy)
 Gallagher Asphalt Co., Inc., P. O. Box 173, Thornton, Ill. (H)
 General Paving Co., 30 E. John St., Champaign, Ill. (H-Hvy)
 Gilmore, Chas. G., Asphalt Prods., Inc., Anna, Ill. (H)
 Granite Bituminous Paving Co., 3943 Duncan Ave., St. Louis 10, Mo. (H-Hvy)
 Groves, S. J., & Sons Co., P. O. Box 312, Springfield, Ill. (H-Hvy)
 Gund Graham Co., State Bank Bldg., Freeport, Ill. (H-Hvy)
 Gunther, H. H., Constr. Co., 600 E. Main St., Galesburg, Ill. (H-Hvy)
 Hall, H. H., Constr. Co., 211 S. 15th St., East St. Louis, Ill. (H-Hvy)
 Harrison Engr. & Constr. Corp., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo. (H-Hvy)
 Hartong & Co., 340 Sherwood Ct., LaGrange Park, Ill. (H)
 Hoeffken, M. Co. & Hoeffken Bros., Inc., 222 W. B St., Belleville, Ill. (H-Hvy)
 Holdren Constr. Co., P. O. Box 417, Mt. Vernon, Ill. (H-Hvy)
 Huckaba & Sons Constr. Co., P. O. Box 104, Mattoon, Ill. (H-Hvy)
 Illinois Steel Bridge Co., 205 Allen Ave., Jacksonville, Ill. (H-Hvy)

ILLINOIS—Continued

Ind, Chas., Co., R. R. #1, Point Ave., Rockford, Ill. (H-Hvy)
 J-P Constr. Co., The, P. O. Box 123, 1750 State St., Chicago Heights, Ill. (H-Hvy)
 Jansen & Schaefer, 15th & Broadway, Pekin, Ill. (B-H-Hvy)
 Jefferson Asphalt Co., Inc., 1209 Casey, P. O. Box 447, Mt. Vernon, Ill. (H)
 Joliet Bridge & Constr. Co., 68 N. Chicago St., Rm. 323, Joliet, Ill. (H-Hvy)
 Joyce Bros. Constr. Co., 715 Myers Bldg., Springfield, Ill. (H-Hvy)
 Keeley Bros. Constr. Co., 4211 State St., East St. Louis, Ill. (H-Hvy)
 Lake, D. M., Constr. Co., Box 109, Shelbyville, Ill. (H-Hvy)
 Larson, Elmer, Inc., 320 Prospect St., P. O. Box 383, DeKalb, Ill. (H-Hvy)
 Lough, Wm., & Sons, 305 S. Granite St., Marion, Ill. (H-Hvy)
 Maclair Asphalt Co., Inc., 6000 Collinsville Rd., East St. Louis, Ill. (H-Hvy)
 Madison Constr. Co., P. O. Box 222, Edwardsville, Ill. (H-Hvy)
 Marsch, Louis, Morrisonville, Ill. (H)
 Mass, H. H., Constr. Co., Main St., Algonquin, Ill. (H-Hvy)
 Mautz & Oren, Inc., 406-408 W. Jefferson St., Effingham, Ill. (B-H-Hvy)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 McCalman Constr. Co., 629 Section St., P. O. Box 854, Danville, Ill. (H-Hvy)
 McCann & Co., Inc., Rm. 532, Reichs Bldg., Springfield, Ill. (H-Hvy)
 McCarthy Improvement Co., 602 Kahl Bldg., Davenport, Iowa (H-Hvy)
 Miller, W. L., Co., Elvaston, Ill. (H-Hvy)
 Mitchell Constr. Co., 216 E. Madison St., Herrin, Ill. (H-Hvy-RR)
 Moore Bros., Inc., 2000 St. Claire Ave., East St. Louis, Ill. (H-Hvy)
 Moritz, C. J., Inc., Box 598, Effingham, Ill. (B-H-Hvy-RR)
 O'Connor Constr. Co., Box 292, 610 Reichs Bldg., Springfield, Ill. (H-Hvy-RR)
 Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (H-Hvy)
 Powers-Thompson Constr. Co., 27 S. Chicago St., Joliet, Ill. (H-Hvy)
 Princeville Stone Co., Princeville, Ill. (H-Hvy)
 Quad City Constr. Co., Inc., 644 25th Ave., Rock Island, Ill. (H-Hvy)
 Regenhardt Constr. Co., 302 Hemmelberger-Harrison Bldg., Cape Girardeau 1, Mo. (H-Hvy)
 Rocho, Edw. M., Constr. Co., Inc., 418 2d National Bank Bldg., Freeport, Ill. (H-Hvy)
 Rockford Black Top Constr. Co., 1615 Westchester Dr., Rockford, Ill. (H)
 Rowe Constr. Co., 1523 W. Market St., Bloomington, Ill. (H-Hvy-RR)
 S. M. H. Constr. Co., 1500 N. Adams St., Peoria 3, Ill. (H-Hvy)
 Sangamo Constr. Co., P. O. Box 222, Springfield, Ill. (H-Hvy)
 Sankey Bros., Inc., 402 Illinois Bldg., Springfield, Ill. (H)

Seneca Petroleum Co., Inc., 439 W. 33d St., Chicago 16, Ill. (H-Hvy)
 Shappert Engr. Co., E. Menominee & Blaine Sts., Belvidere, Ill. (H-Hvy)
 Simonds, E. T., Constr. Co., 202 W. Willow St., Carbondale, Ill. (H-Hvy)
 Sterling Asphalt Paving Co., 33 N. LaSalle St., Chicago 2, Ill. (H)
 Stilfield, Ben K., Constr. Co., Inc., 517 12th St., Rock Island, Ill. (H-Hvy)
 Stocker Gravel & Constr. Co., 509 Main St., Highland, Ill. (B-H-Hvy)
 Strunk Bros., Tiskilwa, Ill. (H-Hvy)
 Swords-McDougal Co., 1500 N. Adams St., Peoria 3, Ill. (H-Hvy-RR)
 Thompson Asphalt Co., P. O. Box 28, Madison, Ill. (H-Hvy)
 Tillman, C. E., Co., Inc., 702 N. Locust St., Centralia, Ill. (B-H-Hvy)
 Triangle Constr. Co., 480 N. Evergreen Ave., Kankakee, Ill. (H-Hvy)
 Trinidad Asphalt Mfg. Co., Chouteau Bldg., 4030 Chouteau Ave., St. Louis 10, Mo. (H)
 Tri-State Engr. Co., P. O. Box 615, Benton, Ill. (H-Hvy)
 Tritt Bros., Belleville National Bank Bldg., Belleville, Ill. (H-Hvy)
 Trompeter Constr. Co., 2428 4th St., Peru, Ill. (H-Hvy)
 Valley Bldgs., Inc., 100 E. St. Paul St., Spring Valley, Ill. (H-Hvy)
 Valley Engr. Co., Colson Bldg., 116½ W. Main St., St. Charles, Ill. (H-Hvy)
 Wetherby, J. P., Constr. Co., 1016 W. Superior, Ottawa, Ill. (H-Hvy)
 Whetzel Bros., 201 N. Walnut St., Champaign, Ill. (H-Hvy)
 Zimmerly Constr. Co., S. Marshall St., Paris, Ill. (H-Hvy)

(d) SOUTHERN ILLINOIS BUILDERS ASSOCIATION

President—John J. Keeley, 2030 State St., East St. Louis, Ill.
Secretary-Treasurer—C. M. Lomax, S. M. Wilson & Co., 1616 Cleveland Ave., P. O. Box 173, Granite City, Ill.
Telephone: Tri City 6-3466
 Altman, J. J., & Co., 1764½ State St., East St. Louis, Ill. (B)
 Barmac Constr. Co., Inc., P. O. Box 141, Chester, Ill. (B)
 Bauer Bros. Constr. & Supply Co., 424 Lebanon Ave., Belleville, Ill. (B-Hvy)
 Conduit Constr. Co., Inc., 2317 Tennessee Ave., St. Louis 4, Mo. (Hvy)
 Fruin-Colnon Constr. Co., 1706 Olive St., St. Louis 3, Mo. (B-Hvy-RR)
 Ganschietz, Ferd, 501 N. 18th St., East St. Louis, Ill. (B)
 General Constr. Co., Inc., 23d & Lincoln Ave., Granite City, Ill. (B-Hvy)
 Grabbe, H. A., Constr. Co., 409 Commercial Bldg., Alton, Ill. (B-Hvy)
 Hall, H. H., Constr. Co., 211 S. 15th St., East St. Louis, Ill. (B-Hvy)
 Hoefken, M., Co. & Hoefken Bros., Inc., N. 3d & W. B Sts., Belleville, Ill. (B-H-Hvy)

Hursey, Clinton, Constr. Co., 1101A Missouri Ave., East St. Louis, Ill. (Hvy)
 Keeley Bros. Constr. Co., 4211 State St., East St. Louis, Ill. (H-Hvy)
 Keeley, John J., 2030 State St., East St. Louis, Ill. (B)
 Keeley, John J., Co., 2030 State St., East St. Louis, Ill. (B)
 Keeley, Jos. P., Constr. Co., 4409 Caseyville Ave., East St. Louis, Ill. (B-H-Hvy)
 Latta, J. E., Constr. Co., Inc., 6609 Latta Pl., St. Louis 20, Mo. (B-Hvy)
 Mary Constr. Co., 2000 St. Clair Ave., East St. Louis, Ill. (B-Hvy)
 Moore Bros., Inc., 2000 St. Claire Ave., East St. Louis, Ill. (B)
 Murch-Jarvis Co., Inc., 718 Locust St., St. Louis, Mo. (B)
 R. & R. Constr. Co., 735 Park Dr., Alton, Ill. (B)
 Stephens, Edgar, & Sons, Inc., 216 10th St., Cairo, Ill. (B)
 Studebaker, Tom, Constr. Co., 1904 Delmar Ave., Granite City, Ill. (B)
 Tarlton, G. L., Constr. Co., 5505 Dale Ave., St. Louis 10, Mo. (B-H-Hvy)
 Vollmar Bros. Constr. Co., Foot of Victor St., St. Louis 4, Mo. (B-Hvy)
 Wheatley, Geo. W., & Son, P. O. Box 603, Duplo, Ill. (B)
 Wilson, C. T., Constr. Co., 99 E. Grand Ave., St. Louis 7, Mo. (B)
 Wilson, S. M., & Co., 1616 Cleveland Ave., P. O. Box 173, Granite City, Ill. (B)
 Wolfe, M. H., & Co., Inc., 20th & Adams Sts., Granite City, Ill. (B)

Local Members

Evans Constr. Co., 1900 E. Washington St., P. O. Box 1521, Springfield, Ill. (B)
 Felmley-Dickerson Co., 603 Peoples Bank Bldg., Bloomington, Ill. (B)
 Herlihy Mid-Continent Company, 135 S. LaSalle St., Chicago 3, Ill. (B-Hvy-RR)
 Jobst, V., & Sons, 1209 Lehmann Bldg., Peoria 2, Ill. (B)
 Simmons, J. L., Company, Inc., 2146 N. Woodford St., P. O. Box 69, Decatur 60, Ill. (B-Hvy)

13. INDIANA

(a) INDIANA HIGHWAY CONSTRUCTORS, INC.

President—Mike Ryan, Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind.
Executive Secretary—W. M. Holland, 801 Roosevelt Bldg., Indianapolis 4, Ind.
Telephone: Lincoln 7547
 Allen, G. H., 230 American Bank Bldg., Vincennes, Ind. (H)
 Asphalt Surfacing Co., 4200 E. 82d St., R.R. 13, Box 473, Indianapolis, Ind. (H)
 Babcock, W. C., Constr. Co., P. O. Box 237, Rensselaer, Ind. (H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

INDIANA—Continued

Berns Constr. Co., 312 E. Washington St., Indianapolis 4, Ind. (H)

Bontrager Constr. Co., 618 W. Indiana Ave., Elkhart, Ind. (H)

Breslin Constr. Co., Inc., 1433 S. Preston St., Louisville 8, Ky. (H)

Brooks Constr. Co., 1123 Barthold St., Fort Wayne 7, Ind. (H)

Calumet Paving Co., W. 96th St. & Zionsville Rd., Zionsville, Ind. (H-Hvy)

Dailey, L. W., Constr. Co., 1034 Oakland St., Fort Wayne 7, Ind. (H)

DeBolt Constr. Co., Inc., P. O. Box 208, Richmond, Ind. (H)

Dehner, John, Inc., 1206 Clark St., Fort Wayne 7, Ind. (H)

Fauber Constr. Co., Inc., P. O. Box 496, Lafayette, Ind. (H)

Feigel Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (H)

Gast Constr. Co., P. O. Box 249, 216 S. Columbia St., Warsaw, Ind. (H)

Gates, John R., 2410 Springfield Ave., Fort Wayne, Ind. (H)

Goodwin Constr. Co., Inc., P. O. Box 157, Danville, Ind. (H)

Grace Constr. & Supply Co., The, 1825 S. Anthony Blvd., Fort Wayne 4, Ind. (H)

Gradle Bros., Inc., Carmel, Ind. (H)

Grady Bros., Inc., 6101 College Ave., Indianapolis, Ind. (H)

Hart & Hart, P. O. Box 338, Providence, Ky. (H)

Harvey, Geo. R., & Son, Danville, Ind. (H)

Hipskind Drainage Co., 1725 Winter St., Fort Wayne 4, Ind. (H)

Kahl & Mahon, 402 N. Main St., Liberty, Ind. (H)

Kelly, John F., P. O. Box 267, 34th St. & Fort Harrison Rd., Terre Haute, Ind. (H)

King, Robt. H., 85 S. Washington St., Danville, Ind. (H)

Kruzick, Geo., Constr. Co., P. O. Box 37, Winamac, Ind. (H)

Magaw, W. L., Hawkins Rd., P. O. Box 330, Richmond, Ind. (H)

McCalman Constr. Co., 619 Section St., P. O. Box 854, Danville, Ill. (H-Hvy)

McMahan Constr. Co., 107 E. 9th St., Rochester, Ind. (H)

Meitz-Spears-Dehner Co., Inc., 1212 Clark St., Fort Wayne 7, Ind. (H)

Meshberger Bros. Stone Corp., P. O. Box 81, Linn Grove, Ind. (H)

Middle West Roads Co., P. O. Box 30, Noblesville, Ind. (H)

Moellering Constr. Co., Office & Yard—Engle Rd., P. O. Box 1168, Fort Wayne 1, Ind. (H-Hvy)

Mohr Constr. Co., Inc., 1420 S. Union St., Kokomo, Ind. (H)

Myers, Ralph, Contr. Corp., Salem, Ind. (H-Hvy)

O'Connor, J. C., & Sons, Inc., 2104 Miner St., Fort Wayne 6, Ind. (H-Hvy)

Olinger Constr. Co., P. O. Box 96, Olinger Bldg., Huntingburg, Ind. (H-Hvy)

Phend & Brown, Milford, Ind. (H)

Powers-Thompson Constr. Co., 27 S. Chicago St., Joliet, Ill. (H)

Reed Constr. Co., Inc., 202½ N. Main St., Mishawaka, Ind. (H)

Rieth-Riley Constr. Co., W. Madison St., P. O. Box 477, Goshen, Ind. (H-Hvy)

Ruckman-Hansen, Inc., 3617 Leo Rd., Fort Wayne 8, Ind. (H)

Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (H-Hvy)

Schutt, R. L., Co., 120 E. Market St., Union Trust Bldg., Rms. 4 & 5, Indianapolis 4, Ind. (H)

Serodino, V. P., Inc., 7 W. North Bend Rd., Cincinnati 16, Ohio (H)

Sheehan Constr. Co., 205 Holliday Bldg., 241 E. Ohio St., Indianapolis 4, Ind. (H-Hvy)

Smalley, D. R., & Sons, Inc., 426 W. Market St., Celina, Ohio (H)

Smith & Johnson, Inc., P. O. Box 650, 1799 Kentucky Ave., Indianapolis 6, Ind. (H-Hvy)

Stuntz-Yeoman Co., Inc., Delphi, Ind. (H)

Sweet, J. S., Co., R. R. 1, Cambridge City, Ind. (H)

Tharp, Harold, Fountain City, Ind. (H)

Thompson Constr. Co., Inc., 3840 Prospect St., Indianapolis 3, Ind. (H)

Traylor Bros., Inc., Station B, Box 66, Evansville 12, Ind. (H)

Tri-State Constr. Co., The, 3100 E. 56th St., Indianapolis 20, Ind. (H)

Walsh & Ikeler, R. R. 2, Gary, Ind. (H)

Wayne Paving, Inc., 1825 S. Anthony Blvd., Fort Wayne 4, Ind. (H)

Weikel Constr. Co., Inc., The Meyer Rd., R. R. #12, Fort Wayne, Ind. (H)

White Constr. Co., The, 1735 Fullerton Ave., Chicago 14, Ill. (H)

White, Wm. L., & Son, 400 N. 10th St., Terre Haute, Ind. (H)

Wilson, J. L., 145 W. Mechanic St., Bloomfield, Ind. (H)

Winslow Constr. Co., 508 N. Water St., Salem, Ind. (H)

(b) INDIANA GENERAL CONTRACTORS' ASSOCIATION

President—Clyde R. Yater, Shelby Constr. Corp., 1235 Jefferson Ave., P. O. Box 152, Shelbyville, Ind.

Executive Secretary—C. Oliver Holmes, 1456 N. Delaware St., Indianapolis 2, Ind.

Telephone: Plaza 2382

Abraham, W. J., & Sons, Inc., 8th & Pershing Sts., Seymour, Ind. (B)

Associated Bldrs., Inc., The, 608 Nichol Ave., P. O. Box 612, Anderson, Ind. (B)

Bahre, Geo., Co., 1015 Southeastern Ave., Indianapolis 2, Ind. (B)

Brandt Bros. & Co., 1925 Fletcher Ave., Indianapolis 3, Ind. (B)

Bryant Co., Cincinnati St. & Pennsylvania R. R., P. O. Box 118, Franklin, Ind. (B)

Burrell, Thos. L., Inc., 4000 E. 16th St., Indianapolis 7, Ind. (B-Hvy)

Cannon Constr. Co., Inc., 1913 Winfield Ave., Indianapolis 22, Ind. (B)

Colvin, Leslie, 507 Board of Trade Bldg., 143 N. Meridian, Indianapolis 4, Ind. (B)

Crabtree-Maule Corp., 529 N. W. 7th, Friends Box 33, Richmond, Ind. (B-Hvy)

Cramer, E. F., 224 N. Alabama St., Indianapolis 4, Ind. (B)

Drew, Jas. H., Corp., 503 Architects & Builders Bldg., Indianapolis 4, Ind. (B)

Dunkin, W. R., & Son, 3220 W. 25th St., Anderson, Ind. (B)

Dunlap & Co., Inc., 522 Jackson St., Columbus, Ind. (B)

Fatout Bldg. Co., The, 3422 Winthrop Ave., Indianapolis 5, Ind. (B)

Garriott, Jay A., P. O. Box 215, Bedford, Ind. (B)

Geupel, Carl M., Constr. Co., 1919 N. Meridian St., Indianapolis 2, Ind. (B)

Glaser, A. J., Co., Inc., P. O. Box 649, 401 S. Lincoln St., Muncie, Ind. (B)

Glenroy Co., 450 S. Ritter Ave., Indianapolis 19, Ind. (B)

Hanson, Frank W., 645 N. Davidson St., Indianapolis 2, Ind. (B)

Harlos Constr. Co., 219 W. 4th St., Bloomington, Ind. (B)

Huber, Hunt & Nichols, Inc., P. O. Box 128, Indianapolis 6, Ind. (B)

Hunnicutt, A. R., Co., 2110 Spring St., P. O. Box 128, New Castle, Ind. (B)

Juerling, Vincent H., & Sons, 1229 S. 8th St., Richmond, Ind. (B)

Jungclaus, Wm. P., Co., Inc., 825 Massachusetts Ave., Indianapolis 4, Ind. (B)

Krebay Constr. Co., 108 E. 9th St., Indianapolis 2, Ind. (B)

Ostrom Constr. Co., Inc., 335 K. of P. Bldg., Indianapolis 4, Ind. (B)

Reddington, J. D., 6160 N. Sherman Dr., Indianapolis 20, Ind. (B)

Repp & Mundt, Inc., 1604 Cottage Ave., Columbus, Ind. (B)

Schpack, R. E., Co., 1538 N. Meridian St., Indianapolis 2, Ind. (B)

Shelby Constr. Corp., 1235 Jefferson Ave., P. O. Box 152, Shelbyville, Ind. (B)

Siegfried, Jos. E., 409 Perrin Ave., Lafayette, Ind. (B)

Simmons, J. L., Company, Inc., 12th Fl., Inland Bldg., Indianapolis 4, Ind. (B-Hvy)

Snyder, Lawrence J., Corp., 110 N. Elm St., P. O. Box 772, Muncie, Ind. (B)

Stackhouse, A. V., Co., 2611 Winthrop Ave., Indianapolis 5, Ind. (B)

Stone, L. L., Inc., 8015 E. 46th St., P. O. Box 252, Lawrence 26, Ind. (B-Hvy)

Tousley, H. D., Co., Inc., 925 E. St. Clair St., Indianapolis 4, Ind. (B)

Wagner, Chas. E. W., Co., Inc., 430 S. 12th St., Richmond, Ind. (B)

Wilhelm, F. A., 3914 Prospect St., Indianapolis 3, Ind. (B)

(Calumet Division)

Adinolfi, John A., 3827 Main St., P. O. Box 240, East Chicago, Ind. (B)

Becker, Peter, P. O. Box 215, Calumet City, Ill. (B)

Clark, Roy C., 804 E. Chicago Ave., East Chicago, Ind. (B-Hvy)

Foster, J. M., & Co., 5711 W. 5th Ave., P. O. Box 622, Gary, Ind. (B-Hvy)

General Constr. Co. of Michigan City, Inc., 416 Franklin St., Michigan City, Ind. (B)

Gerometta Constr. Co., 857 Virginia St., Gary, Ind. (B)

Howells, Prosser, 5031 Broadway, Gary, Ind. (B)

Larson-Danielson Constr. Co., Inc., 302 Tyler St., La Porte, Ind. (B)

A.G.C. DIRECTORY

INDIANA—Continued

Olney, H. B., Inc., 1202 E. Chicago Ave., East Chicago, Ind. (B-Hvy)
 Rahn, John F., Inc., 500 W. 150th St., East Chicago, Ind. (B-Hvy)
 Rowley, Fred C., & Sons, Inc., 4732 Calumet Ave., Hammond, Ind. (B-H-Hvy-RR)
 Rueth, Leo, & Sons, Inc., 1050 Cherry St., Hammond, Ind. (B)
 Schumaker Constr. Co., E. Michigan at Warnke Rd., Michigan City, Ind. (B-Hvy-RR)
 Superior Constr. Co., 1800 E. 7th Ave., P. O. Box 630, Gary, Ind. (B)
 Swenson Carlson Bldrs., Inc., Cline & Chicago Ave., P. O. Box 330, East Chicago, Ind. (B)
 Tonn & Blank, Inc., 104 N. Franklin St., Michigan City, Ind. (B)

(Fort Wayne Division)

Buesching Bros. Constr. Co., 219 E. Berry St., Fort Wayne 2, Ind. (B-Hvy)
 Bungler, Harry, & Son, Cromwell, Ind. (B)
 Hagerman Constr. Corp., 403 Strauss Bldg., Fort Wayne 2, Ind. (B)
 Indiana Constr. Co., Inc., 201 Ft. Wayne Bank Bldg., Fort Wayne 2, Ind. (B)
 Irmischer, Max, & Sons, Inc., 1113 Ft. Wayne Bank Bldg., Fort Wayne 2, Ind. (B)
 Schenkel, Wm. P., & Sons, 1120 St. Mary's Ave., Fort Wayne 7, Ind. (B)
 Sheets, W. A., & Sons, Inc., 1057 Osage St., P. O. Box 119, Fort Wayne 1, Ind. (B)
 Wermuth, Inc., 1036 St. Mary's Ave., Fort Wayne 7, Ind. (B-Hvy)

(South Bend Division)

Christman, H. G., Constr. Co., Inc., 850 Felsows St., South Bend 24, Ind. (B)
 Hickey, Thos. L., Inc., 712 N. Niles Ave., South Bend 22, Ind. (B)
 Schumacher, Peter, & Sons, Inc., 321 S. Spring St., Mishawaka, Ind. (B)
 Sollitt Constr. Co., Inc., 301 S. Columbia St., South Bend 24, Ind. (B)

(Terre Haute Division)

Cutshall, J. M., & Son, Riddell National Bank Bldg., Brazil, Ind. (B)
 Garmong, C. H., & Son, 1201 Crawford St., Terre Haute, Ind. (B)
 Johnson, Drake & Piper, Inc., 112 N. 7th St., P. O. Box 595, Terre Haute, Ind. (B)

Kretz, John H., 409 Center St., Washington, Ind. (B)
 Roehm Bros., Inc., 30½ N. 5th St., Terre Haute, Ind. (B)

Sanford, W. H., Corp., 306 N. 11th St., P. O. Box 297, Terre Haute, Ind. (B)
 Snyder Constr. Co., Inc., 1900 Chestnut St., Vincennes, Ind. (B)

(Wabash Valley Division)

Barnes, Jas. I., Constr. Co., Barnes Bldg., P. O. Box 16, Logansport, Ind. (B)
 Bowman Constr. Co., Inc., 1127 S. Branson St., Marion, Ind. (B)

Doran, A. L., Constr. Co., R. R. #4, Peru, Ind. (B)
 Harrelld Bros., 901½ W. 3d St., Marion, Ind. (B)
 Kemmer, A. E., Box 375, 3d & Brown Sts., Lafayette, Ind. (B)
 Kettelhut, K. H., 70-B Lafayette Loan & Trust Bldg., Lafayette, Ind. (B)
 Mayfield Constr. Co., 1311 N. Ann St., Kokomo, Ind. (B)
 Price & Price, Inc., 318 Ferry St., Lafayette Ind. (B)
 Pugh, John T., R.R. #1, Rochester, Ind. (B)
 Wolf Constr. Co., 613 W. Market St., Logansport, Ind. (B)

(c) EVANSVILLE CHAPTER

President—D. C. Dunham, Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind.

Executive Secretary—Albert J. Sweet, 1204 N. 1st Ave., Evansville 10, Ind. Telephone: 3-9129

Aalco Constr. Co., 1171 Diamond Ave., Evansville, Ind. (B)
 Anderson & Loer, 410 W. Iowa St., Evansville 11, Ind. (B)
 Anderson & Veatch, Inc., 223 S. E. 8th St., Evansville 9, Ind. (B)
 Bauer Bros. Constr. & Supply Co., 522 Market St., Evansville, Ind. (B)
 Clark Constr. Co., 1919 Parrish Ave., Owensboro, Ky. (B)
 Feigel Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (B-H-Hvy)
 Murphy, Allan, Constr., Box 176, Evansville, Ind. (B)
 P & H Constr. Co., Inc., 205 E. Illinois St., Evansville, Ind. (B-Hvy)
 Peyronnin Constr. Co., 209 E. Division St., Evansville, Ind. (B)
 Rust Constr. Corp., 1301 E. Michigan St., Evansville 2, Ind. (B)
 Ryan Constr. Corp., 800 E. Michigan St., Evansville 7, Ind. (B-H-Hvy)
 Thorp Constr. Co., Inc., 2520 Boonville Hwy 62, P. O. Box 22, Evansville, Ind. (B)
 Three A Bldgs., Inc., 1270 Maxwell Ave., Evansville, Ind. (B)
 Traylor Bros. Inc., Box 66, Station B., Evansville, Ind. (B-H-Hvy)
 Williams, R. R., 1728 Moseley St., Owensboro, Ky. (B)

14. IOWA

(a) ASSOCIATED GENERAL CONTRACTORS OF IOWA

President—Ray Van Buskirk, Ira Van Buskirk & Sons, Hawarden, Iowa
Executive Secretary—O. W. Crowley, 707 Keo Way, Des Moines 9, Iowa
 Telephone: 4-6287

Abramson, John P., Constr. Co., 720 Savings & Loan Bldg., Des Moines 9, Iowa (B-H-Hvy-RR)
 Alexander & Repass, 309 Securities Bldg., Des Moines 9, Iowa (H-Hvy-RR)

Andersen Contr. Co., 1225 Stephenson Way, Des Moines 14, Iowa (H)
 Anderson, B. L., 327 Guaranty Bldg., Cedar Rapids, Iowa (H)
 Armstrong, J. D., Co., Inc., 1606 Grand, Ames, Iowa (H)
 Atlantic Constr. Co., Inc., 1650 Northwest Dr., Des Moines 10, Iowa (H)
 Baker, Myron, P. O. Box 61, Gilmore City, Iowa (H)
 Barker-Rose Constr. Co., 109 S. 6th St., Marshalltown, Iowa (H)
 Benderoff, V. C., S. E. 5th & Hartford, Des Moines 15, Iowa (H)
 Blunk, J. C., Constr. Co., 524 W. Main St., Ottumwa, Iowa (H)
 Booth & Olson, Inc., Insurance Exchange Bldg., Box 304, Sioux City 2, Iowa (H-Hvy)
 Boyette, M. E., Constr. Co., Kensett, Iowa (H)
 Braden Constr. Co., Griswold, Iowa (H)
 Brogan Constr. Co., 307 Masonic Temple Bldg., Des Moines 9, Iowa (H)
 Burch Constr. Co., Washington Bldg., Madison 3, Wis. (H)
 Burch, R. B., Inc., 1718 Park Ave., S. E., Cedar Rapids, Iowa (H-Hvy)
 Cameron, Joyce & Co., 19 S. 7th St., Keokuk, Iowa (H-Hvy)
 Carlson Constr. Co., Box K, Essex, Iowa (H)
 Carlson Constr. Co., c/o O. H. Johnson, 656 N. 59th St., Omaha, Nebr. (H)
 Carlson, Fred, Co., Inc., Decorah, Iowa (H)
 Central Constr. Co., Indianola, Iowa (H)
 Central Engr. Co., 2531 Rockingham Rd., Davenport, Iowa (B-H-Hvy)
 Christensen Bros., 3011 Virginia St., Sioux City 18, Iowa (H)
 Clark Bros. Constr. Co., Hinton, Iowa (H)
 Clinton Bridge Corp., 101 S. 2d St., Clinton, Iowa (H-Hvy)
 Clinton Engr. Co., 1323 N. 2d St., Clinton, Iowa (H-Hvy)
 Coffeen, A. R., Co., 906 S. Mill St., Decorah, Iowa (B-H-Hvy)
 Cohron, A. M., & Son, 6110 S. W. 12th St., Des Moines, Iowa (B-H)
 Cole, Ben, & Son, 114 Clark Ave., Ames, Iowa (B-H-Hvy)
 Concrete Materials & Constr. Co., Box 790, 405 Granby Bldg., Cedar Rapids, Iowa (H)
 Condon-Cunningham Company, 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy-RR)
 Cook, Ray, Constr. Co., Ames, Iowa (H)
 Costigan, J. C., Elkader, Iowa (B-H)
 Council Bluffs Constr. Co., 106 S. 17th St., Box 646, Council Bluffs, Iowa (H)
 Cunningham-Reis Co., 1020 Liberty Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Curphy, Bill, Co., 448 Insurance Exchange Bldg., Des Moines, Iowa (H-Hvy-RR)
 Des Moines Steel Co., 421 S. W. 4th St., Des Moines 4, Iowa (H-Hvy)
 Diesch Constrs., 204 Borch, Waterloo, Iowa (H)
 Dixon Bros. Co., Correctionville, Iowa (H)
 Dobson Bros. Constr. Co., 512 1st National Bank Bldg., Lincoln, Nebr. (H-Hvy)
 Duesenberg, E. M., Inc., Clear Lake, Iowa (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

IOWA—Continued

- Duvall, P. K., Inc., Logan, Iowa (H)
 Easton Constr. Co., 315½ Main St., Ames, Iowa (H)
 Eblen, Orville, Atlantic, Iowa (H)
 Ekdahl, Hilding, 613 N. 8th St., Ft. Dodge, Iowa (H)
 Emco Constr. Co., Algona, Iowa (H)
 Everds Bros., Box 374, Algona, Iowa (H)
 Falk, L. R., St. Ansgar, Iowa (H)
 Ferguson-Diehl, Inc., Jefferson, Iowa (H-Hvy)
 Flinn Paving Co., 210 S. 18th St., Omaha, Nebr. (H)
 Gee Constr. Co., P. O. Box 15, Shenandoah, Iowa (H)
 Gillotti Constr. Co., 1405 S. E. 1st St., Des Moines 15, Iowa (H-Hvy)
 Gjellefald Constr. Co., Forest City, Iowa (Hvy)
 Gould Constr. Co., The, 507 Security Bldg., Davenport, Iowa (Hvy-RR)
 Graves Bros. Co., Melvin, Iowa (H)
 Green Constr. Co., 312 Masonic Temple Bldg., Des Moines 9, Iowa (H-Hvy)
 Green, Ralph, & W. L. Groesbeck, 312 Masonic Temple Bldg., Des Moines 9, Iowa (H-Hvy)
 Haegg Constr. Co., Box 769, Cedar Rapids, Iowa (H)
 Hahn Constr. Co., 4103 1st St., Des Moines, Iowa (H-Hvy)
 Hanson Constr. Co., 106 W. 17th, Washington, Iowa (H-Hvy)
 Hargrave Constr. Co., 2424 Bever Ave., S. E., Cedar Rapids, Iowa (H)
 Harrison Engr. & Constr. Co., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo. (H-Hvy)
 Heckman-Reynolds Co., Charles City, Iowa (H)
 Herrick, G. G., Box 1355, Des Moines 9, Iowa (H-Hvy)
 Hoak Constr. Co., Box 37, West Des Moines, Iowa (Hvy)
 Hobe Engr. Co., 2121 E. 4th St., Sioux City 19, Iowa (H)
 Holland Bros. Constr. Co., Inc., Decorah, Iowa (H)
 Horrabin, Wm., Contr. Co., 15 E. College, Iowa City, Iowa (H)
 Hymans, John, & Sons, Hull, Iowa (H)
 Iowa Bridge Co., Box 7, Highland Park Sta., Des Moines, Iowa (Hvy)
 Jensen Constr. Co., 1901 Easton Blvd., Des Moines 16, Iowa (H-Hvy)
 Jensen & Krage, 2220 Hawkeye Dr., Sioux City 19, Iowa (H-Hvy)
 Johnson, M. L., 112 32d St. Dr., S. E., Cedar Rapids, Iowa (H)
 Johnston, Wagner, Constr. Co., 622 Insurance Exchange Bldg., Sioux City 13, Iowa (H)
 Kaser Constr. Co., Box 36, West Des Moines, Iowa (H)
 Kehe Constr. Co., Box 324, Waverly, Iowa (B-Hvy)
 Kiewit, Peter, Sons' Co., 1024 Omaha National Bank Bldg., Omaha, Nebr. (B-H-Hvy-RR)
 Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Kramme, E. A. Co., Inc., Box 7, Highland Park Sta., Des Moines, Iowa (H-Hvy-RR)
 Kucharo Constr. Co., 225 Jewett Bldg., Des Moines 9, Iowa (B)
 Leonhard, J. T., Constr. Co., Columbus Junction, Iowa (H)
 Linnan, W. B., Pocahontas, Iowa (H)
 Lippert Bros., Inc., 827 Monona St., Boone, Iowa (B-Hvy)
 Lowe Constr. Co., Box 58, Marion, Iowa (H)
 Lundeen Constr. Co., Montezuma, Iowa (H)
 Lytle, C. F., Company, Box 206, Sioux City, Iowa (H-Hvy-RR)
 Mathis, A. F., 205 4th St., West Des Moines, Iowa (Hvy)
 McCarthy Improvement Co., 602 Kahl Bldg., Davenport, Iowa (H-Hvy)
 McGuire, M. T. & John T., Algona, Iowa (H)
 McNeill, J. W., Constr. Co., 4509 3d Ave., Sioux City 13, Iowa (H)
 Melberg, Amos, 316 19th St., S. E., Cedar Rapids, Iowa (H)
 Mickle & Ross Constr. Co., Box 541, Newton, Iowa (H)
 Midwest Pre-Cote Co., 7600 E. 17th St., Kansas City 3, Mo. (H)
 Miller, John G., Constr. Co., 222 W. Mullan Ave., Waterloo, Iowa (B)
 Missouri Valley Limestone Co., Inc., 516 Paramount Bldg., Des Moines 9, Iowa (H)
 Montgomery, F. O., Co., Humboldt, Iowa (H)
 Moser, F. A., Farmersburg, Iowa (H)
 Mott Constr. Co., 308 W. Prairie St., Center-ville, Iowa (Hvy)
 Myers Bros., Ft. Atkinson, Iowa (E-RR)
 Neumann, Arthur H., & Bros., Inc., 514 Hubbell Bldg., Des Moines 9, Iowa (B)
 Nielsen, Wilbur, Co., Blencoe, Iowa (H-Hvy)
 Noel, Harry, 1414 Grand Ave., Spencer, Iowa (H)
 North Central Constr. Co., Hampton, Iowa (H)
 Olson, A., Constr. Co., 1225 Commercial St., Waterloo, Iowa (H)
 Ostermann, Gus, & Sons, Ocheyedan, Iowa (H)
 Peterson Bros., Laurens, Iowa (H)
 Pittsburgh-Des Moines Steel Co., 1015 Tuttle St., Des Moines 9, Iowa (H-Hvy)
 Quad City Constr. Co., Inc., 644 25th Ave., Rock Island, Ill. (Hvy)
 Quealy Constr. Co., 650 S. 16th St., Ft. Dodge, Iowa (Hvy-RR)
 Sani Constr. Co., 102 Forest Ave., Des Moines 14, Iowa (H)
 Schildberg Constr. Co., Greenfield, Iowa (H)
 Schmidt Constr. Co., Winfield, Iowa (H)
 Schroeder, H. F., & Sons, Arcadia, Iowa (H)
 Scothorn Constr. Co., Cherokee, Iowa (H)
 Shirey, C. W., 84 W. Mullan, Waterloo, Iowa (H-Hvy)
 Shirley Constr. Co., 1103 W. O. W. Bldg., Omaha 2, Nebr. (H)
 Spencer, E. B., Constr. Co., 2840 W. 4th St., Waterloo, Iowa (H)
 States Constr. Co., 3018 Kingman Blvd., Des Moines 11, Iowa (H)
 Strother, J. P., Constr. Co., Eldon, Iowa (H)
 Strother & Richm, Inc., Eldon, Iowa (H)
 Taylor, C. B. & M. R., Decorah, Iowa (H-Hvy)
 Torvik & Sons Constr. Co., 209 5th Ave., Decorah, Iowa (H)
 Upham, Dale, Box 184, West Union, Iowa (H)
 Van Buskirk, Ira, & Sons, Hawarden, Iowa (H)
 Van Dusseldorp, Eben, 724 E. Division St., Colfax, Iowa (H)
 Weaver Constr. Co., P. O. Box 704, Iowa Falls, Iowa (H)
 Weaver, M. O., Inc., 539 5th St., Des Moines 9, Iowa (H)
 Weitz Co., Inc., The, 406 Fleming Bldg., Des Moines 9, Iowa (B)
 Welden Bros., Iowa Falls, Iowa (H-Hvy-RR)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)
 Western Engr. Co., Box 350, Harlan, Iowa (H)
 Willman Constr. Co., The, Hwy. #150, No., Box 1068, Cedar Rapids, Iowa (H-Hvy)
 Wilson, Robt. M., Guttenberg, Iowa (B-Hvy)

(b) MASTER BUILDERS OF IOWA

President—Frederick W. Mast, Jens Olesen & Sons Constr. Co., 321 W. 18th St., Box 575, Waterloo, Iowa
Executive Secretary—Walter W. Moeller, 110 Hubbell Bldg., Des Moines, Iowa
Telephone: 8-1081

- Allied Engr. Co., Atlantic, Iowa (B)
 Andersen Constr. Co., 619 S. Main St., Council Bluffs, Iowa (B)
 Bey Constr. Co., 1226 Elmhurst Dr., N. E., Cedar Rapids, Iowa (B)
 Bride & Didier, 1520 25th St., Sioux City, Iowa (B)
 Castle, E. B., & Son, 231 12th St., Marion, Iowa (B)
 Christensen Constr. Co., 839 3d Ave., Sibley, Iowa (B)
 Clinton Engr. Co., 1323 N. 2d St., Clinton, Iowa (B)
 Coffeen, A. R., Co., 906 S. Mill St., Decorah, Iowa (B)
 Cohron, A. M., & Son, 6110 S. W. 12th St., Des Moines, Iowa (B)
 Conlon Constr. Co., 240 Railroad Ave., Dubuque, Iowa (B)
 Coomer, R. M., Constr. Co., 523 Insurance Exchange Bldg., Sioux City, Iowa (B)
 Cowan, H. J., Co., Algona, Iowa (B)
 Darner, Phil, 231 W. Main St., Ottumwa, Iowa (B)
 Davey & Moen, 604 Brick & Tile Bldg., Mason City, Iowa (B)
 De Stigter Bros., Box 336, Sioux Center, Iowa (B)
 Dimmitt Constr. Co., Box 287, Shenandoah, Iowa (B)
 Drape Constr. Co., 212 2d Ave., N. W., Waverly, Iowa (B)
 Edson, R. C., 229 Cayuga St., Storm Lake, Iowa (B)
 Epperson & Co., Box 327, Sumner, Iowa (B)
 Fagge Constr. Co., 1201 3d Ave., So., Estherville, Iowa (B)
 Fell & Anton, 219 W. Mullan, Waterloo, Iowa (B)
 Forest City Improvement Co., Forest City, Iowa (B)
 Garmer & Stiles Co., 519 14th St., Des Moines, Iowa (B)
 Gethmann Constr. Co., Inc., Gladbrook, Iowa (B)

IOWA—Continued

Graham, R. H., Constr. Co., R. F. D. #3, Boone, Iowa (B)
 Grosz, M. J., 1813 8½ Ave., No., Ft. Dodge, Iowa (B)
 Hansen, Arthur V., Co., 1521 Cherry Lane, Cedar Falls, Iowa (B)
 Hansen, Chris, 1615 E. 7th St., Sioux City 19, Iowa (B)
 Haring, Daniel, Co., Inc., 7 6th Ave., So., Clinton, Iowa (B)
 Henkel Constr. Co., 525 9th St., S. E., P. O. Box 149, Mason City, Iowa (B)
 Hermans Constr. Co., 406 12th Ave., No., Ft. Dodge, Iowa (B)
 Hersom, C. I., Laurens, Iowa (B)
 Hoffman Bros., 405 5th Ave., S. W., Independence, Iowa (B)
 Holtze, H. S., Constr. Co., 2121 E. 4th St., Sioux City 19, Iowa (B)
 Jackson Constr. Co., 2805 W. Main St., Emmetsburg, Iowa (B)
 Jacobson, Con, Co., 103 S. 1st, Marshalltown, Iowa (B)
 Johnson Engr. & Constr. Co., Box 554, Storm Lake, Iowa (B)
 Jorgensen, O., & Sons, 1014 Roosevelt St., Clinton, Iowa (B)
 Jorstad, John, 2907 Grandview, Sioux City, Iowa (B)
 K-M Constr. Co., 1692 Garfield Ave., Dubuque, Iowa (B)
 Kepp, W. A., & Sons Co., P. O. Box 166, Orange City, Iowa (B)
 Klinger, W. A., Co., 2015 E. 7th St., Sioux City 15, Iowa (B)
 Klise Constr., 1719½ State St., Bettendorf, Iowa (B)
 Knudson, Wm., & Sons, 608-610 Flynn Bldg., Des Moines 9, Iowa (B)
 Kramme, C. J., 2224 2d Ave., No., Ft. Dodge, Iowa (B)
 Kucharo & Assos., Inc., 225 Jewett Bldg., Des Moines, Iowa (B)
 Larsen, C. C., & Sons, 10 N. Main St., Council Bluffs, Iowa (B)
 Lippert Bros., Inc., 827 Monona St., Boone, Iowa (B)
 Lippert Constr. Co., Oelwein, Iowa (B)
 Loomis Bros., 509½ 3d Ave., S. E., Cedar Rapids, Iowa (B)
 Lovejoy Constr. Co., 1118 Mulberry St., Des Moines 9, Iowa (B)
 Martineau, R. A., 605 Fairview Ave., Muscatine, Iowa (B)
 Mattson, W. A., 2803 West Ave., Burlington, Iowa (B)
 McCorkle, Paul, Constr. Co., Sac City, Iowa (B)
 McCreedy, M. D., Constr. Co., Inc., 1205 Seymour Ave., Iowa City, Iowa (B)
 Mildestein, Max, 1714 E. Ave., N. E., Cedar Rapids, Iowa (B)
 Miller, John G., Constr. Co., 222 W. Mullan Ave., Waterloo, Iowa (B)
 Morehead Constr. Co., 217 Dows Bldg., Cedar Rapids, Iowa (B)
 Mueller Constr. Co., Rm. 15, Woodbury Bldg., Marshalltown, Iowa (B)
 Mulford, Ben, Box 543, Bradford, Iowa (B)

Nelson, Carl A., & Co., Inc., 1815 Des Moines Ave., Burlington, Iowa (B)
 Neumann, Arthur H., & Bros., Inc., 514 Hubbell Bldg., Des Moines 9, Iowa (B)
 Olesen, Jens, & Sons Constr. Co., 321 W. 18th St., Box 575, Waterloo, Iowa (B)
 Osterling Constr. Co., Inc., 422½ W. Main, Cherokee, Iowa (B)
 Park, Paul, Co., W. 5th & Railroad, Storm Lake, Iowa (B)
 Patton, R. L., Constr. Co., 1824 Blondeau, Keokuk, Iowa (B)
 Paulson, O. F., Constr. Co., 401 Iowa Theatre Bldg., Cedar Rapids, Iowa (B)
 Peterson, C. A., & Sons, 217 N. Union St., Rock Rapids, Iowa (B)
 Priestner Constr. Co., 1121 Davenport Bank Bldg., Davenport, Iowa (B)
 Reimer, C. F., Constr. Co., Inc., P. O. Box 12, Marshalltown, Iowa (B)
 Rinderknecht, R. W., Co., 113 F Ave., N. W., Cedar Rapids, Iowa (B)
 Ringland-Johnson, Inc., 202 Cooper Bldg., Des Moines, Iowa (B)
 Schaefer, Henry R., Co., 1326 W. 3d St., Davenport, Iowa (B)
 Smith Constr. Co., Inc., 512 Ave. G, Ft. Madison, Iowa (B)
 Sparks Constr. Co., 222 High Ave., E., Oskaloosa, Iowa (B)
 Spencer Constr. Co., 10 W. 5th St., Spencer, Iowa (B)
 Stark, Don R., & Co., Inc., 400 E. Mill St., P. O. Box 576, Ottumwa, Iowa (B)
 Stolz, R. A., Constr. Co., 101 N. Locust Ave., New Hampton, Iowa (B)
 Stone Constr. Co., 718 Sumner Ave., Humboldt, Iowa (B)
 Terrell Constr. Co., 2607 Logan, Des Moines, Iowa (B)
 Thompson, Jas., & Sons, 222 E. 3d St., Ames, Iowa (B)
 Tunnick Constr. Co., Box 177, Davenport, Iowa (B)
 Vawter, Fane F., & Co., 207 9th St., Des Moines, Iowa (B)
 Walker, C. Glenn, Co., 515 2d Ave., So., Ft. Dodge, Iowa (B)
 Washburn Constr. Co., 304 E. Washington St., Centerville, Iowa (B)
 Wayman, W. M., Constr. Co., 320 Redding-ton Ave., Cherokee, Iowa (B)
 Weitz Co., Inc., The, 406 Fleming Bldg., Des Moines 9, Iowa (B)
 Wickes Engr. & Constr. Co., 1441 2d Ave., Des Moines 14, Iowa (B)
 Wildes Constr. Co., 533 Park Rd., Waterloo, Iowa (B)
 Wildman, R. H., Constr. Co., 211 Kirkwood Ave., Iowa City, Iowa (B)
 Willy Constr. Co., 2160 Central Ave., Dubuque, Iowa (B)
 Wiltgen Constr. Co., P. O. Box 502, LeMars, Iowa (B)
 Wood, Earl R., Ainsworth, Iowa (B)
 Wood, Milo, & Son, W. 4th St., So., R. R. #4, Newton, Iowa (B)
 Zitterell-Mills Co., 607 Prospect St., Webster City, Iowa (B)
 Zwack, Anton, Inc., 1301 Central Ave., Dubuque, Iowa (B)

15. KANSAS

(a) KANSAS CHAPTER, BUILDERS DIVISION

President—Wm. H. Douglas, Douglas Constr. Co., 510 E. 15th St., Topeka, Kans.
Manager & Executive Secretary—Kenneth R. Lewis, Suite 409, National Reserve Bldg., Topeka, Kans.
Telephone: 3-1814
 Armagost, Walter, Constr. Co., 519 S. Broadway, Suite 10, Wichita, Kans. (B)
 Baumann, Geo. E., 713 E. Austin, Nevada, Mo. (B)
 Bennett Constr. Co., 114 Taylor St., Topeka, Kans. (B-Hvy)
 Blaser, Frank E., Bldg. Co., P. O. Box 112, 430 N. Rock Island, Wichita, Kans. (B)
 Borden, Val, Constr. Co., P. O. Box 883, Salina, Kans. (B)
 Bowers Constr. Co., Inc., 627 College Ave., Topeka, Kans. (B)
 Brenner & Myshka Co., Inc., 815 W. 2d, Wichita, Kans. (B)
 Busboom & Rauh, 109 E. Iron Ave., Salina, Kans. (B)
 Casson Constr. Co., 603 Topeka Blvd., Topeka, Kans. (B)
 Constant Constr. Co., Inc., 2d & Perry, P. O. Box 126, Lawrence, Kans. (B-Hvy)
 Cowan, C. J., Constr. Co., Inc., 1150 Oakley, Topeka, Kans. (B)
 Dalton Constr. Co., 220½ W. 4th St., Joplin, Mo. (B)
 Davidson, Forest R., Constr. Co., P. O. Box 388, Norton, Kans. (B)
 Dondlinger & Sons Constr. Co., 1206 E. Lincoln, Wichita 1, Kans. (B)
 Douglas Constr. Co., 510 E. 15th St., Topeka, Kans. (B)
 Eby, Martin K., Constr. Co., Inc., 610 N. Main, Wichita 5, Kans. (B)
 English, N. F., Constr. Co., Inc., 601 E. 2d St., Hutchinson, Kans. (B)
 Fessler, Frank, 155½ N. Santa Fe, Salina, Kans. (B)
 Frank, J. S., 227 S. 5th St., Salina, Kans. (B)
 Frankenfeld Constr. Co., 1012½ Main St., Winfield, Kans. (B)
 Gehring, F. P., 214 N. 8th, Atchison, Kans. (B)
 Green, B. A., Constr. Co., Inc., P. O. Box 25, Lawrence, Kans. (B)
 Green, Mont J., Ulrich Bldg., Manhattan, Kans. (B)
 Hahner & Foreman, Inc., 121 N. Waco, Wichita, Kans. (B)
 Hill, Douglas G., Inc., 734 Merrill, Salina, Kans. (B)
 Hubbard, Roy, Constr. Co., 117-127 E. 6th, Junction City, Kans. (B)
 Jayhawk Constr. Co., Inc., 812 Adams St., Topeka, Kans. (B)
 Jensen & Ridge, Box 1918, Wichita 1, Kans. (B)
 Johnson Bros. Constr. Co., 1200 Park St., P. O. Box 44, Salina, Kans. (B)
 Kaaz, Julius E., Jr., 326 Pine St., Leavenworth, Kans. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

KANSAS—Continued

Lundgren, J. A., & Son, 213 Jackson St., Topeka, Kans. (B)
 Messenger, A. Lbr. & Milwk. Constr. Co., The, 822 E. 4th St., Pittsburg, Kans. (B)
 Milligan, O. D., Constr. Co., Box 706, Manhattan, Kans. (B)
 Mitchell Constr. Co., The, 1850 E. Sunshine, Springfield, Mo. (B-Hvy)
 Mitchell, E. J., Constr. Co., 117 W. Harvey Ave., Wellington, Kans. (B)
 Moreland Constr. Co., 140 Laura, Wichita 7, Kans. (B)
 Neely, John C., Constr. Co., 120 S. Topeka Ave., Wichita, Kans. (B)
 Noland Constr. Co., 1302 1st St., Dodge City, Kans. (B)
 Rinner, George, Constr. Co., Inc., 4th & N. Lane, Shorey, Topeka, Kans. (B)
 Sell, F. H., Constr. Co., 422 N. Washington, Wichita, Kans. (B)
 Senne, George, & Co., P. O. Box 425, Topeka, Kans. (B)
 Smith Bros. Constr., 305 Cherokee, Leavenworth, Kans. (B)
 Soderberg, A. W., Constr. Co., 910 E. Indianapolis, Wichita 1, Kans. (B)
 Vollmer, Clarence E., Constr. Co., 840 N. Main St., Wichita, Kans. (B)
 Watson, M. W., 1004 National Bank of Topeka Bldg., Topeka, Kans. (B-H-Hvy)
 Wayland, John F., Washington, Kans. (B)
 Weller & Boucher Constr. Co., 1316 S. Mosley, Wichita 11, Kans. (B)
 Willcam, Geo., 151 Garnett, Wichita, Kans. (B)

(b) KANSAS CONTRACTORS ASSOCIATION

President—C. E. Maxwell, The Maxwell Bridge Co., P. O. Box 348, Columbus, Kans.

Manager—J. W. Ballard, Hotel Jayhawk, Topeka, Kans.

Telephone 3-2748

Aldridge, R. G., 1604 Nebraska Ave., Kansas City 2, Kans. (H-Hvy)
 Alsop, John, Wakefield, Kans. (H)
 Anderson Constr. Co., Holton, Kans. (H)
 Anderson-Oxandale, Holton, Kans. (H)
 Asplund Constr. Co., 309 E. Oak St., Enid, Okla. (H-Hvy)
 Atkinson, C. H., Paving Co., Chillicothe, Mo. (H-Hvy)
 Baker, G. W., 725 Wisconsin, Holton, Kans. (H)
 Baker, Roy, Ozawkie, Kans. (H)
 Ballou, R. R., Constr. Co., E. Cloud St., Salina, Kans. (H)
 Banta Constr. Co., Harper, Kans. (H)
 Barcus, L. C., & Sons, Inc., 1430 State Ave., Kansas City 2, Kans. (H)
 Bennett Constr. Co., 114 Taylor St., Topeka, Kans. (B-H-Hvy)
 Bennett, Geo., Constr. Co., 1520 Central Ave., Kansas City 2, Kans. (H-Hvy)
 Bennett, W. H., Constr. Co., 1310 State St., Kansas City 2, Kans. (H)
 Blacktop Constr. Co., Emporia, Kans. (H)
 Blair Bros. Constr. Co., Quinter, Kans. (H)
 Bloom, Dale, Overbrook, Kans. (H-Hvy)
 Blue River Sand & Gravel Co., Irving, Kans. (H)

Broce Constr. Co., 214 S. 2d, Dodge City, Kans. (H)
 Broce & Smith, Inc., Box 711, Larned, Kans. (H)
 Brommer, O. G., Belleville, Kans. (H)
 Brosnahan, Earl F., 511 Grand Avenue Bank Bldg., Kansas City 6, Mo. (B-H-Hvy)
 Brown Bros. Constr. Co., P. O. Box 745, Manhattan, Kans. (H)
 Brown & Brown, Inc., 715 E. Crawford Ave., Salina, Kans. (H-Hvy)
 Brown, V. U., Constr. Co., Box L, Downs, Kans. (H)
 Brummel, B. J., Constr. Co., Garnett, Kans. (H)
 Burt & Binford, 507-15 W. 2d Ave., Hutchinson, Kans. (H-Hvy)
 C & H Constr. Co., 669 S. 10th St., Salina, Kans. (H)
 Carrothers Constr. Co., Inc., Box 350, Paola, Kans. (H)
 Carter, W. B., Constr. Co., P. O. Box 2237, Wichita, Kans. (Hvy)
 Caylor Bros. Constr. Co., Hoxie, Kans. (H)
 Cement Asphalt Prods. Co., 410 N. Main St., Winfield, Kans. (H-Hvy)
 Clarkson Constr. Co., The, 4133 Gardner Ave., Box 4924, Station F, Kansas City 1, Mo. (H-RR)
 Coffey, Jas., 932 High Ave., Topeka, Kans. (H)
 Collins Constr. Co., P. O. Box 155, Leavenworth, Kans. (H)
 Concrete Materials & Constr. Co., Box 790, 405 Granby Bldg., Cedar Rapids, Iowa (H)
 Constant Constr. Co., Inc., 2d & Perry, P. O. Box 126, Lawrence, Kans. (B-H)
 Cook & Cone, 337 N. Dellrose St., Wichita 8, Kans. (H)
 Dobson Bros. Constr. Co., 1st National Bank Bldg., Lincoln, Nebr. (H-Hvy)
 Douglas Bros., Inc., 510 E. 15th St., Topeka, Kans. (Hvy)
 Erickson Constr. Co., Assaria, Kans. (H)
 Forster, A. J., 408 S. Pearl St., Paola, Kans. (H)
 Freeto Constr. Co., Inc., The National Bank Bldg., Pittsburg, Kans. (H-Hvy)
 Frisbie, J. W., Railway Exchange Bldg., Kansas City 6, Mo. (H)
 Geiger, E. W., Inc., 1st & Topeka Blvd., Box 799, Topeka, Kans. (H-Hvy)
 General Engr. Co., 1144 Woodward, Topeka, Kans. (H-Hvy)
 Globe Constr. Co., 1041 N. Water St., Wichita 5, Kans. (H-Hvy)
 Gray, C. E., Box 547, Emporia, Kans. (H-Hvy)
 Griffin Constr. Co., 6000 Merriam Rd., Merriam, Kans. (H-Hvy)
 Grosshans & Petersen, Inc., Marysville, Kans. (H-RR)
 Grundeman Constr. Co., 415 E. 4th St., Holton, Kans. (H-Hvy)
 Grundeman, Ed., 1034 Medford St., Topeka, Kans. (H)
 Hall Bros. Constr. Co., Marysville, Kans. (H)
 Hamm, Norman R., Perry, Kans. (H)
 Hansen, D. C., Logan, Kans. (H-Hvy)
 Harper, L. F., 2412 Broadway, Great Bend, Kans. (H)
 Harrison Engr. & Constr. Corp., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo. (H-Hvy)
 Hayes, L. W., Inc., 4550 Main St., Kansas City 2, Mo. (H)
 Henery, Harry, Inc., Ottawa, Kans. (H)
 Hites, L. V., Co., 214 Grand Avenue Bank Bldg., Kansas City 8, Mo. (H)
 Hixson & Lehenbauer, 717 Lincoln St., Topeka, Kans. (H-Hvy)
 Homer, W. O., Junction City, Kans. (H)
 Hulme, Chas., 816 Main St., Great Bend, Kans. (H)
 Hunter, Ralph H., Constr. Co., Box 622, Hays, Kans. (H)
 Independent Constr. Co., P. O. Box 61, Overland Park, Kans. (H-Hvy)
 Inland Constr. Co., P. O. Box 1993, Wichita, Kans. (H-Hvy-RR)
 Jacobson, L. A., Box 130, Paule Valley, Okla. (H)
 Kaw Paving Co., Inc., 1st St. & Topeka Ave., Topeka, Kans. (H-Hvy)
 Kiewit, Peter, Sons' Co., Municipal Airport P. O., Wichita 13, Kans. (B-H-Hvy-RR)
 Klaver & Wallace, Box 272, Kingman, Kans. (H)
 Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy-RR)
 Land Constr. Co., 1207 S. 4th St., St. Joseph 26, Mo. (H-Hvy)
 List & Clark Construction Company, 729 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy-RR)
 List & Weatherly Constr. Co., 231 W. 47th St., Kansas City, Mo. (H-Hvy)
 Marbut, T. F., Columbia Bldg., Emporia, Kans. (H)
 Matthews Constr. Co., 451 W. 2d St., Hoisington, Kans. (H)
 Maxwell Bridge Co., The, P. O. Box 348, Columbus, Kans. (H)
 McGlone, Perry, Constr. Co., 608 Grand Avenue Bank Bldg., Kansas City 8, Mo. (H)
 Mid-Kan Development Co., Inc., P. O. Box 174, Junction City, Kans. (H-Hvy)
 Midwest Constr. Co., 701 Iowa, Holton, Kans. (H)
 Midwest Pre-Crete Co., 7600 E. 17th St., Kansas City 3, Mo. (H)
 Miller Bros., 1801 Argentine Blvd., Kansas City, Kans. (H-Hvy)
 Mission Equip. & Constr. Co., 6007 W. 61st St., Mission, Kans. (H)
 Monaghan, J. H., & N. M., & Assoc. Cos., Rt. 1, Derby, Colo. (H)
 Myers, Geo. M., Inc., P. O. Box 665, El Dorado, Kans. (H)
 O'Brien, W. F., St. Paul, Kans. (H)
 Penny, M. N., P. O. Box 131, Lawrence, Kans. (H)
 Purtzer & Dutton, Norton, Kans. (H)
 Reece Constr. Co., Scandia, Kans. (H-Hvy)
 Reis, A. F., 702 National Bank of Topeka Bldg., Topeka, Kans. (H)
 Reno Constr. Co., Box 61, Overland Park, Kans. (H)
 Rexroad, L. W., & Son, Box 954, Salina, Kans. (H)
 Rhoades Constr. Co., Inc., 413½ Main St., Newton, Kans. (H)
 Ritchie Bros. Constr. Co., Box 2178, Wichita 1, Kans. (H)

KANSAS—Continued

Rogers, H. A., & Sons, Lebo, Kans. (H)
 Rogers, Ira, 1267 Boswell, Topeka, Kans. (H-Hvy)
 Ross Sand Co., Concordia, Kans. (H)
 Sandford, N. Ralph, Hoisington, Kans. (H)
 San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans. (H)
 Sargent Excavating Co., Inc., 812 Adams St., Topeka, Kans. (Hvy)
 Scherrer, Dan, Constr. Co., 903 N. 3d St., Kansas City 4, Kans. (H)
 Schwartz, David, Russell, Kans. (H)
 Schweitzer, Adrian L., Osborne, Kans. (H)
 Shears, J. H., Sons, Inc., P. O. Box 227, Hutchinson, Kans. (H)
 Sherwood, A. G., Constr. Co., 829 N. Penn, Independence, Kans. (H)
 Sherwood Constr. Co., Inc., 619 N. Santa Fe St., Wichita 5, Kans. (Hvy)
 Small, M. M., 1619 W. 2d, Topeka, Kans. (H)
 Stannard Constr. Co., 519 S. Broadway, Suite 6, Wichita 2, Kans. (H-Hvy)
 Storms & Frew Constr. Co., 6601 E. 37th St., Kansas City 3, Mo. (H)
 Swenson Constr. Co., 3305 Terrace St., Kansas City 2, Mo. (H-Hvy)
 Taylor, H. J., Constr. Co., United Life Bldg., Salina, Kans. (H-Hvy)
 Tobin, J. A., Constr. Co., 3700 Rainbow Blvd., Kansas City 3, Kans. (H-Hvy)
 Universal Bridge Co., Inc., 527 Scarritt Bldg., Kansas City 6, Mo. (H)
 Utility Contrs., Inc., 610 N. Main St., Wichita 5, Kans. (Hvy)
 Vance Bros., 4923 Lawn Ave., Kansas City 4, Mo. (H)
 Walters Sand Co., P. O. Box 618, Manhattan, Kans. (H)
 Watson, M. W., 1004 National Bank of Topeka Bldg., Topeka, Kans. (B-H-Hvy)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)
 Young Constr. Co., 4209 St. Joseph Ave., St. Joseph, Mo. (H)
 Youngman, H. D., P. O. Box 166, Baxter Springs, Kans. (H-Hvy-RR)

16. KENTUCKY

(a) KENTUCKY HIGHWAY DIVISION

President—J. R. Breeden, Lyons & Breeden, Box 209, Madisonville, Ky.
 Vice President—A. D. Gorman, Gorman Constr. Co., P. O. Drawer 151, Flemingsburg, Ky.
 Executive Secretary—W. O. Snyder, New Capital Hotel, Frankfort, Ky.
 Telephone: 4-4078
 Adams, H. C., 1006 Delaware Ave., Lexington, Ky. (H)
 Ambrosius Industries, Inc., 2791 S. Floyd St., Louisville 13, Ky. (H)
 Boone, S. J., 1520 Griffith Ave., Owensboro, Ky. (H)
 Breslin Constr. Co., Inc., 1433 S. Preston St., Louisville 8, Ky. (H)
 Cheek, Geo. H., Constr. Co., Inc., 300 McClure Bldg., Frankfort, Ky. (H)

Codell Constr. Co., Inc., P. O. Box 17, Winchester, Ky. (H-Hvy-RR)
 Codell, M. T., & Co., Inc., 363 Crescent Ave., Winchester, Ky. (H-RR)
 Corum & Edwards, P. O. Box 112, Madisonville, Ky. (H-Hvy)
 Crow, Fount, Box 284, Beaver Dam, Ky. (H)
 Dawson, R. R., Bloomfield, Ky. (H-RR)
 Fuller-Davies Co., Frankfort, Ky. (H)
 Gaddie, R. E., Inc., P. O. Box 343, Bowling Green, Ky. (H)
 Gorman Constr. Co., P. O. Drawer 151, Flemingsburg, Ky. (H)
 Hinkle Constr. Co., Box 147, Paris, Ky. (B-H)
 Kentucky-Virginia Stone Co., P. O. Drawer 137, Middlesboro, Ky. (H)
 Lehman-Roberts Co., 615 Citizens Bank Bldg., Lexington 3, Ky. (H)
 Lovell & Hart Constr. Co., Box 1528, Lexington, Ky. (H)
 Lyons & Breeden, Box 209, Madisonville, Ky. (H)
 Middle States Bituminous Corp., Box 1071, Ashland, Ky. (H)
 Nally, Sam, Co., Box 331, Bardstown, Ky. (H)
 Robinson, Robt. M., R. F. D. #1, Owensboro, Ky. (H)
 Snider, W. C., 411 N. Maple Ave., Danville, Ky. (H)
 Strunk Constr. Co., Box 46, Somerset, Ky. (H)
 Talbott-Myers Constr. Corp., P. O. Box 231, Winchester, Ky. (H-Hvy-RR)
 Tye & Wells, Eminence, Ky. (H)
 Tyler, R. B., Co., 1446 Levering St., Louisville 8, Ky. (H)
 Walker, A. W., & Son, 15 E. Bank St., Box 308, Mt. Sterling, Ky. (H)
 Waters Constr. Co., P. O. Box 152, Elizabethtown, Ky. (H)
 Williams, H. K., 4141 Park Blvd., Louisville, Ky. (H)
 Wood & Barton Co., 410 Ann St., Frankfort, Ky. (H)
 Wyse, Harry O., Versailles Pike, Rt. 2, Lexington, Ky. (H-Hvy)

(b) LOUISVILLE CHAPTER

President—H. G. Whittenberg, Whittenberg Constr. Co., 2214 S. Floyd St., Louisville 8, Ky.
 Manager—D. R. Lyman, 120 E. Brandeis Ave., Louisville 8, Ky.
 Telephone: Calhoun 2521
 Bickel, Henry, Co., Inc., 1020 E. Chestnut St., Louisville 4, Ky. (H-Hvy)
 Bornstein, Ale, Inc., 1219 Logan St., Louisville 4, Ky. (B)
 Coupe Constr. Co., 429 E. Woodbine Ave., Louisville 8, Ky. (B)
 Derby Constr. Co., Inc., 4504 Poplar Level Rd., Louisville, Ky. (B-H)
 Eady, Geo. M., Co., 340 Byrne St., Louisville 8, Ky. (H-Hvy)
 Hays & Nicoulin, 939 Franklin St., Louisville 6, Ky. (B)
 Highland Co., 644 Baxter Ave., Louisville 4, Ky. (H)
 Jennings, J. D., Co., 235 E. Gaulbert St., Louisville 8, Ky. (B)

Lichtefeld, Fred J., & Son, 989 Logan St., Louisville 4, Ky. (B)
 Louisville Asphalt Co., 240 E. Lee St., Louisville 8, Ky. (H)
 Mann Constr. Co., 422 E. Market St., New Albany, Ind. (B)
 Mueller, C. W., 4001 S. Brook St., Louisville 14, Ky. (B)
 Owens, F. W., Co., 119 N. 5th St., Louisville 2, Ky. (B)
 Platoff Constr. Co., 501 E. Woodbine Ave., Louisville 8, Ky. (B)
 Rommel, Geo. H., Co., 958 Logan St., Louisville 4, Ky. (B)
 Schickli, J. U., & Bros., 13th & Oak Sts., Louisville 10, Ky. (B-H-Hvy)
 Schneider, Al J., Co., 3720 7th St. Rd., Shively, Ky. (B)
 Skilton Engr. & Constr. Corp., 202 E. Bloom Ave., Louisville 8, Ky. (B)
 Steilberg, H. J., & Son, Box 13, Shively, Ky. (B)
 Struck Constr. Co., 147 N. Clay St., Louisville 2, Ky. (B)
 Sullivan & Cozart, 822 W. Kentucky St., Louisville 3, Ky. (B)
 Whittenberg Constr. Co., 2214 S. Floyd St., Louisville 8, Ky. (B)

Local Member

Ruby Constr. Co., Madisonville, Ky. (B-H-Hvy)

17. LOUISIANA

(a) NEW ORLEANS CHAPTER

President—Geo. S. Farnsworth, R. P. Farnsworth & Co., Inc., 1515 S. Salcedo St., P. O. Box 850, New Orleans 2, La.
 Managing Director—Sidney H. Walker, 434 Audubon Bldg., 931 Canal St., New Orleans 16, La.
 Telephone: Tulane 8401

A & O Bldrs., 3207½ Metairie Rd., New Orleans 20, La. (B)
 Andry & Voss, 503 Washington Ave., New Orleans 13, La. (B)
 B & Q Constr. Co., 511 N. Villere St., New Orleans 16, La. (B)
 Bartley & Binnings, 433 Gravier St., New Orleans 12, La. (B)
 Betpouey, Clement, Jr., & Co., 1432 Canal Bank Bldg., New Orleans, La. (B-Hvy)
 Blount Bros. Constr. Co., 817 Bell Bldg., Montgomery, Ala. (B)
 Boh Bros. Constr. Co., 2400 Cypress St., New Orleans 19, La. (B-H-Hvy)
 Bott, C. N., P. O. Box 10127, Jefferson Br., 2551 Metairie Rd., New Orleans 20, La. (B)
 Brice Bldg. Co., Inc., 1021 2d Ave., No. Box 1028, Birmingham 1, Ala. (B)
 Bruns Bridge Co., 319 Whitney Bldg., New Orleans 12, La. (Hvy)
 Corbin, John C., Contrs., Inc., 833 Wood St., Houma, La. (B)
 Corr, John L., Jr., 3718 Milan St., New Orleans 15, La. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

LOUISIANA—Continued

Farnsworth & Chambers Co., Inc., P. O. Box 332, New Orleans, La. (B-H-Hvy)
 Farnsworth, R. P., & Co., Inc., 1515 S. Salcedo St., P. O. Box 850, New Orleans 2, La. (B-Hvy)
 Favret, Lionel F., Co., Inc., 937 Gravier St., New Orleans 12, La. (B)
 Favrot, Gervais F., Co., 330 Balter Bldg., New Orleans 12, La. (B)
 Fegles Constr. Co., Inc., 711 Wesley Temple Bldg., Minneapolis 4, Minn. (B-Hvy)
 Globe Constr. Co., Inc., 8139 Oleander St., New Orleans 18, La. (B)
 Glover, Geo. J., Co., Inc., Whitney Bldg., New Orleans 12, La. (B)
 Goldberg, A. N., Inc., 623 Maison Blanche Bldg., New Orleans 16, La. (B-H-Hvy)
 Gurtler, Hebert & Co., Inc., 1539 Pleasure St., New Orleans 22, La. (B-Hvy)
 Haase Constr. Co., 822 Perdido St., New Orleans 12, La. (B)
 Hardy-Stevens Co., 226 Carondelet St., New Orleans 12, La. (B)
 Hogan Bros., Inc., 236 Focis St., New Orleans 20, La. (B-H-Hvy)
 Jensen, A., P. O. Box 5301, New Orleans 15, La. (B)
 Jones, J. A., Constr. Co., Inc., 209 W. 4th St., P. O. Box 966, Charlotte 1, N. C. (B-H-Hvy-RR)
 Kaiser Engrs., Inc., P. O. Box 1051, New Orleans 4, La. (B)
 Keller Constr. Corp., 7930 Palm St., P. O. Box 439, New Orleans 1, La. (B-H-Hvy)
 Kelly-Geneser Constr. Co., 2120 Senate St., New Orleans 22, La. (B-Hvy)
 Larsen, Chris, Co., Maritime Bldg., New Orleans 12, La. (B)
 Lee, J. Gordon, 904 National Bank of Commerce Bldg., New Orleans 12, La. (B)
 McCoy, Geo. W., & Co., Inc., 809 Central Ave., New Orleans 21, La. (B)
 McKee, Robt. E., Gen. Contr., Inc., P. O. Box 149, New Orleans 3, La. (B)
 O'Connor Oakes Co., 542 2d St., Gretna, La. (B)
 Perrillat-Rickey Constr. Co., Inc., 1530 S. Rendon St., New Orleans 15, La. (B)
 Reilly, Michael H., 123 S. St. Patrick, New Orleans 19, La. (B)
 Riess, John, 226 Carondelet St., New Orleans 12, La. (B-Hvy)
 Sharp, Otis W., & Son, Inc., P. O. Box 5164, 2401 Rousseau St., New Orleans 13, La. (B)
 Spencer, C. B., 2350 Rousseau, New Orleans 13, La. (B)

(b) SHREVEPORT CHAPTER

President—Benton L. Kelly, J. A. Jones Constr. Co., Inc., 354 Aero Dr., P. O. Box 1818, Shreveport, La.
Executive Secretary—C. H. Rollins, P. O. Box 1271, Shreveport, La.
Telephone: 2-8921
 Allen Constr. Co., 3855 Dilg League Dr., P. O. Box 3044, Queensboro Sta., Shreveport, La. (B)
 Brockhaus, Ed., 1911 Lake Shore Dr., Box 3325, Queensboro Sta., Shreveport, La. (B)

Brown, J. M., Constr. Co., Inc., 1012 Spring St., P. O. Box 102, Shreveport, La. (B)
 Furr, D. O., Constr. Co., 718 Edwards St., Shreveport, La. (B)
 General Constr. Co., 1417 Dalzell St., P. O. Box 1622, Shreveport, La. (B)
 Gilbert, F. O., Contr., Inc., 1128 Gilbert Dr., P. O. Box 5361, Bossier City, La. (B)
 Graham, P. A., 529 E. 69th St., Shreveport, La. (B)
 Gray, W. A., Constr. Co., P. O. Box 626, 861 Grimmer Dr., Shreveport, La. (B)
 Greer Bros., 309 1st National Bank Bldg., Shreveport, La. (B)
 Harper & Florsheim, 216 Milam St., Shreveport, La. (B)
 Jones, J. A., Constr. Co., Inc., 354 Aero Dr., P. O. Box 1818, Shreveport, La. (B)
 Levasseur, A. J., Constr. Co., P. O. Box 3397, Queensboro Sta., Shreveport, La. (B)
 Madden & Larkin, Lincoln Dr., P. O. Box 5615, Bossier City, La. (B)
 McClanahan, Fred C., & Son, 3521 Madison Park Blvd., Shreveport, La. (B)
 McMichael, W. A., Constr. Co., 842 Hope St., P. O. Box 508, Shreveport, La. (B)
 Moncla Constr. Co., The, 5350 Mansfield Rd., P. O. Box 3062, Shreveport, La. (B)
 Neff, Robt. A., 802 Rutherford St., Shreveport, La. (B)
 Shepherd, J. C., 2114 Queens Hwy., Shreveport, La. (B)
 Southern Bldrs., Inc., 201 Hunter Bldg., P. O. Box 1815, Shreveport, La. (B)
 Thomas, J. F., & Son, 117 E. 68th St., Shreveport, La. (B)
 Welch Constr. Co., Box 6428, Cedar Grove Sta., Shreveport, La. (B)
 Werner Co., The, P. O. Box 908, Shreveport, La. (B)
 Whitaker, Guy C., 200 Texas Eastern Bldg., Shreveport, La. (B)

(c) LAKE CHARLES CHAPTER

President—Hudson C. East, Knapp & East, P. O. Box 722, 2508 S. Ryan St., Lake Charles, La.
Secretary—Joe T. Miller, P. O. Box 921, Lake Charles, La.
Treasurer—R. E. Managan, c/o Port City Constr. Co., Inc., 2007 S. Hodges St., P. O. Box 22, Lake Charles, La.
 Gipson, B. A., Constr. Co., Inc., 101 E. School St., P. O. Box 438, Lake Charles, La. (B)
 Knapp & East, 2508 S. Ryan St., P. O. Box 722, Lake Charles, La. (B)
 Miller, T., & Sons, 10 Chavanne Bldg., P. O. Box 921, Lake Charles, La. (B-Hvy)
 Mutersbaugh, A. M., 602 Ann St., Lake Charles, La. (B-H-Hvy)
 Port City Constr. Co., Inc., 2007 S. Hodges St., Lake Charles, La. (B)
 Western Constr. Co., Inc., 1830 South St., Lake Charles, La. (B)

(d) BATON ROUGE CHAPTER

President—Philip R. Farnsworth, R. P. Farnsworth & Co., Inc., 440 N. Foster Dr., P. O. Box 2029, Baton Rouge, La.
Executive Secretary—T. B. Pugh, III, 402 Triad Bldg., Baton Rouge, La.
Telephone: 2-4979
 Barksdale & LeBlanc, P. O. Box 1567, Baton Rouge, La. (B)
 Broussard, A. B., 2937 Greenwood Dr., P. O. Box 2047, Baton Rouge, La. (B)
 Buquet & LeBlanc, 544 Reymond Bldg., Baton Rouge, La. (B)
 C-B Constr. Co., P. O. Box 1967, 1045 Choctaw Rd., Baton Rouge, La. (B)
 Caldwell & McCann, 310 Triad Bldg., Baton Rouge 6, La. (B)
 Carter, Chas., 1742 N. 21st St., Baton Rouge, La. (B)
 Cucchiara Bros., Inc., Hammond, La. (B)
 Eaton, L. W., Co., Inc., 209 Triad Bldg., P. O. Box 387, Baton Rouge 1, La. (B)
 Farnsworth, R. P., & Co., Inc., 440 N. Foster Dr., P. O. Box 2029, Baton Rouge, La. (B)
 Hall & Cox Constr. Co., P. O. Box 1267, Baton Rouge, La. (B)
 King, J. M., 3538 Plank Rd., Baton Rouge 5, La. (B)
 Murphy, J. C., 1165 Choctaw Rd., Box 2308, Baton Rouge, La. (B)
 Pittman Constr. Co., 2925 Franklin Ave., New Orleans, La. (B)
 Thibodeaux, Robt., Co., Inc., 2834 Greenwood Dr., P. O. Box 887, Baton Rouge 6, La. (B)

(e) LOUISIANA HIGHWAY & HEAVY CONSTRUCTION CHAPTER

President—O. G. Kirby, W. R. Aldrich & Co., P. O. Box 1751, Baton Rouge, La.
Manager—R. F. Scriber, 910 Louisiana National Bank Bldg., Baton Rouge 1, La.
Telephone: 4-4073
 Aldrich, W. R., & Co., P. O. Box 1751, Baton Rouge, La. (B-H-Hvy)
 Allen, H. L., & Sons, Elton, La. (H-Hvy)
 Austin Bridge Co., P. O. Box 1590, Dallas, Texas (H)
 Barber Bros. Co., 2604 Dougherty Dr., P. O. Box 629, Baton Rouge, La. (H-Hvy)
 Campbell Constr. Co., Inc., Box 1758, Shreveport, La. (H-Hvy-RR)
 Dickerson & Bowen, P. O. Box 177, Brookhaven, Miss. (H-Hvy)
 Farnsworth, R. P., & Co., Inc., 1515 S. Salcedo St., P. O. Box 850, New Orleans, La. (B-H-Hvy)
 Flenniken Constr. Co., P. O. Box 634, Shreveport, La. (H-Hvy)
 Goldberg, A. N., Inc., 623 Maison Blanche Bldg., New Orleans 16, La. (B-H-Hvy)
 Henry & Hall, Dubach, La. (H-Hvy)
 James, T. L., & Co., Inc., Box 531, Ruston, La. (H-Hvy)
 Johnston, A. P., P. O. Box 288, Baton Rouge, La. (B)

LOUISIANA—Continued

LeBlanc Bros., 702 Louisiana National Bank Bldg., Baton Rouge, La. (H-Hvy)
 Lilly, Roy M., 302 Louisiana Hotel Bldg., Baton Rouge, La. (H-Hvy)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 McDermott, J. Ray, & Co., Inc., P. O. Box 38, Harvey, La. (Hvy)
 Miller, T., & Sons, 10 Chavanne Bldg., Lake Charles, La. (B-Hvy)
 Netherton Co., P. O. Box 3368, Shreveport, La. (H)
 Patterson, W. H., & Co., P. O. Box 2229, Baton Rouge, La. (H-Hvy)
 Pierson Constr. Co., 1007 Louisiana National Bank Bldg., Baton Rouge, La. (H)
 Pohlman & Wilbanks, P. O. Box 1208, Monroe, La. (B-Hvy)
 Pollard, M. E., 2011 E. Texas St., Bossier City, La. (H)
 Reynolds & Williams, P. O. Box 286, Shreveport, La. (H)
 Roland Constr. Co., P. O. Box 850, Alexandria, La. (B-H-Hvy)
 Texas Bitulithic Co., P. O. Box 8044, Gentilly Sta., New Orleans 22, La. (H)
 Tomlinson, T. R., Doyline, La. (H)
 Ward, O. J., Inc., 753½ Gladstone, Shreveport, La. (H-Hvy)

(f) CENTRAL LOUISIANA CHAPTER

President—R. J. Jones, R. J. Jones & Sons, 130 Wheelock Ave., P. O. Box 991, Alexandria, La.
Executive Secretary—S. P. Eggers, Jr., 2134½ Lee St., P. O. Box 4074, Alexandria, La.
Telephone: 6664

Brezner, Barnett, P. O. Box 654, Alexandria, La. (B-Hvy)
 Bufkin & Rockhold, 76 McArthur Dr., P. O. Box 367, Alexandria, La. (B)
 City Lumber Co., Inc., 602 Monroe St., P. O. Box 89, Alexandria, La. (B-Hvy)
 Eiland, Jas. A., Jr., Box 487, Bunkie, La. (B)
 F & F Material & Constr. Co., New Iberia, La. (B)
 Gossen Constr. Co., P. O. Box 818, Lafayette, La. (B)
 Gravier & Harper, P. O. Box 1391, Alexandria, La. (B-Hvy)
 Gremillion, A. A., & Co., P. O. Box 1312, Alexandria, La. (B)
 Gremillion Bros., 1030 Washington St., Alexandria, La. (B)
 Jones, R. J., & Sons, 130 Wheelock Ave., P. O. Box 991, Alexandria, La. (B-Hvy)
 Juneau, L. P., Rt. 21, Ransville, Alexandria, La. (B)
 Kaplan Constr. Co., 211 Albert St., P. O. Box S.L.I. Station 1, Lafayette, La. (B)
 Lagneaux, Richard, & Son, Inc., Duson, La. (B)
 Lemoine Bros., Box 298, Bunkie, La. (B)
 Lemoine, S. J., & Co., P. O. Box 481, Bunkie, La. (B)
 Mouton, J. B., & Sons, 1225 St. John St., P. O. Box 862, Lafayette, La. (B)

Rahalais, E. E., & Son, P. O. Box 59, Bunkie, La. (B)
 Ratcliff, J. E., 1418 3d St., Box 1943, Alexandria, La. (B)
 Rickey, Horace B., Inc., Box 218, Lafayette, La. (B-Hvy)
 Romero & Theall, Youngsville, La. (B)
 Tudor Constr. Co., 1284 Murray St., P. O. Box 1232, Alexandria, La. (B)
 Weill Lumber Co., Abbeville, La. (B)

(g) NORTHEAST LOUISIANA CONTRACTORS' ASSOCIATION, INC.

President—Raymond Masling, Frank Masling & Son, 316 Catalpa St., Monroe, La.
Secretary-Treasurer—C. O. Phillips, Ford, Bacon & Davis Construction Corp., 805 S. Grand St., P. O. Box 1762, Monroe, La.
Executive Secretary—O. W. Brown, P. O. Box 612, Monroe, La.
 Baxter, Don, Sicily Island, La. (B-H)
 Cooley, E. O., Constr. Co., Box 368, Ruston, La. (B)
 Eiland, Edw. H., Box 790, Tallulah, La. (B)
 Ford, Bacon & Davis Construction Corp., 805 S. Grand St., Monroe, La. (B-Hvy)
 Gilbert Bros., 3040 DeSiard St., P. O. Box 1156, Monroe, La. (B)
 Harper, J. A., Crowville, La. (B)
 Haynes, W. G., 615 Cypress St., West Monroe, La. (B)
 Heard, Jesse F., & Son, Box 3566, West Monroe, La. (B)
 Humble & Humble, Cole Ave., Monroe, La. (B)
 Lincoln Bldrs., P. O. Box 51, Ruston, La. (B)
 Masling, Frank, & Son, 316 Catalpa St., Monroe, La. (B)
 McBride & Son, Inc., 120 E. Hickory, P. O. Box 46, Bastrop, La. (B)
 Salley, W. C., 511 Ouachita Bank Bldg., P. O. Box 24, Monroe, La. (B-Hvy)
 Spier, L. C., 224 E. Madison St., Bastrop, La. (B)

Local Member

James, T. L., & Co., Inc., Box 531, Ruston, La. (H-Hvy)

18. MAINE

(a) ASSOCIATED GENERAL CONTRACTORS OF MAINE

President—William J. Salter, Stewart & Williams, Inc., 185 Water St., Augusta, Me.
Executive Secretary—Burleigh Martin, 223 Water St., Augusta, Me.
 Aceto, Samuel, & Co., 40 Preble St., Portland, Me. (B)
 Allen, Guy R., R. F. D. #1, Gardiner, Me. (H)
 Asselyn, Ernest J., 106 William St., Portland 5, Me. (H-Hvy)

Brown Constr. Co., 562 Congress St., Portland, Me. (B)
 Callahan, Herbert E., Inc., 41 N. Main St., Auburn, Me. (B-H-Hvy)
 Cianchette Bros., Inc., 29 Hunnewell Ave., Pittsfield, Me. (B-H-Hvy)
 Consolidated Constrs., Inc., 807 Congress St., Portland 4, Me. (B)
 Cunningham, F. W., & Sons, 181 State St., Portland 3, Me. (B)
 Cunningham, T. W., Inc., 38 Columbia St., Bangor, Me. (B)
 Di Biase, C., Co., Inc., 551 Congress St., Portland 3, Me. (B)
 Houston Co., 199 Maine St., Brunswick, Me. (B)
 McKay, Donald J., 71 Pleasant St., Houlton, Me. (H-Hvy)
 McLellan, Paul B., Co., 52 Marginal Way, Portland, Me. (B)
 Mitton, Walter V., Inc., 12 Winter St., Augusta, Me. (H-Hvy)
 Profenno, Camillo, Co., 127 Marginal Way, P. O. Box 698, Portland 3, Me. (B-Hvy)
 Robbins & White, Inc., 907 Main St., Westbrook, Me. (B-Hvy)
 Romano, Ralph, Jr., 322 Spring St., Portland, Me. (B-H)
 Sanders Constr. Corp., 415 Congress St., Portland 3, Me. (B-Hvy)
 Snodgrass, Ellis C., 465 Congress St., Portland, Me. (B-Hvy)
 Stewart & Williams, Inc., 185 Water St., Augusta, Me. (B-H)
 Susi, P. E., & Co., S. Main St., Pittsfield, Me. (B-H-Hvy)
 Verrier, Robt. A., Constr. Co., 65 Commercial St., Portland, Me. (B-Hvy-RR)
 Warren Bros. Roads Co., P. O. Box 209, Fairfield, Me. (H)
 Wyman, A. P., Inc., 240 College Ave., Box 23, Waterville, Me. (B-H-Hvy)
 Wyman & Simpson, Inc., 283 Water St., Augusta, Me. (B-H-Hvy-RR)

19. MARYLAND

(a) BALTIMORE BUILDERS CHAPTER

President—Walter H. Goertz, Morrow Bros., Inc., 2315 N. Charles St., Baltimore 18, Md.
Manager—Henry D. Romer, 104 W. Madison St., Suite 5A, Baltimore 1, Md.
Telephone: Mulberry 4285
 Armiger Constr. Corp., 2127 Maryland Ave., Baltimore 18, Md. (B)
 Baltimore Contrs., 711 S. Central Ave., Baltimore 2, Md. (B-RR)
 Bickerton, W. E., Constr. Co., Inc., 101 W. 22d St., Baltimore 18, Md. (B)
 Brooklyn Engr. Corp., 1100 E. 25th St., Baltimore 18, Md. (B-Hvy)
 Cogswell Constr. Co., The, 513 Park Ave., Baltimore 1, Md. (B)
 Consolidated Engr. Co., Inc., 20 E. Franklin St., Baltimore 2, Md. (B)
 Costanza Constr. Co., The, 304 Vickers Bldg., 225 E. Redwood St., Baltimore 2, Md. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MARYLAND—Continued

Cramer-Vollmerhausen Co., Inc., 2601 Connecticut Ave., N. W., Washington 8, D. C. (B)
 Davis Constr. Co., The, 320 W. 24th St., Baltimore 11, Md. (B)
 Eyring, E., & Sons Co., 808 S. Conkling St., Baltimore 24, Md. (B)
 Frantz Constr. Co., The, 1115 E. 30th St., Baltimore 18, Md. (B)
 Lauter Constr. Co., 112 S. 16th St., Philadelphia 2, Pa. (B)
 Lawrence Constr. Co., Inc., 2503 St. Paul St., Baltimore 18, Md. (B)
 Leimbach Constr. Corp., 3906 Hickory Ave., Baltimore 11, Md. (B)
 Lynch, W. J., Co., 4801 Patterson Ave., Baltimore 15, Md. (B)
 Lyons, Wm. T., Co., Inc., The, 901 Tower Bldg., Baltimore 2, Md. (B-Hvy)
 Morrow Bros., Inc., 2315 N. Charles St., Baltimore 18, Md. (B)
 Piracci Constr. Co., Inc., 2552 Woodbrook Ave., Baltimore 17, Md. (B)
 Ruff, John K., Co., 100 W. 22d St., Baltimore 18, Md. (B)
 Steiner Constr. Co., 2122 Maryland Ave., Baltimore 18, Md. (B)
 Stewart, James, & Co., Inc., 230 Park Ave., New York 17, N. Y. (B)
 Vizzini, Philip, 504 Stamford Rd., Baltimore 29, Md. (B)
 Young & Adams, Inc., 2 W. 22d St., Baltimore 18, Md. (B)

(b) ASSOCIATED GENERAL CONTRACTORS OF MARYLAND

President—Earl C. Robertson, The Cumberland Contr. Co., P. O. Box 507, Cumberland, Md.

Secretary—J. Russell Schultz, 612 Highland Ave., Towson, Baltimore 4, Md.

Asphalt Service Co., 1299 Chesapeake Ave., Baltimore 25, Md. (H)
 Baltimore Asphalt Block & Tile Co., 1320 N. Monroe St., Baltimore 17, Md. (H)
 Bester-Long, Inc., Hagerstown, Md. (H-Hvy)
 Brotemarkle, S. T., Constr. Co., P. O. Box 393, Cumberland, Md. (H-Hvy-RR)
 Cumberland Contr. Co., The, P. O. Box 507, Cumberland, Md. (H-Hvy-RR)
 Dutcher Constr. Corp., Queenstown, Md. (H-Hvy-RR)
 Empire Constr. Co., The, 31 S. Calvert St., Baltimore 2, Md. (H-Hvy-RR)
 Gibbons, Jas., Co., The, Sutton Ave., Rekey 27, Md. (H-Hvy)
 Grove, M. J., Lime Co., Lime Kiln, Md. (H-Hvy)
 Hazelwood, Geo. F., Co., Inc., The, 36 Howard St., Cumberland, Md. (B-Hvy)
 Intercountry Constr. Corp., 4720 Baltimore Ave., Hyattsville, Md. (Hvy)
 Langenfelder, C. J., & Son, Inc., 8427 Pulaski Hwy., Baltimore, Md. (H-Hvy-RR)
 Mahoney Bros., 24 Knickerbocker Bldg., Baltimore 2, Md. (H)
 Mitchell, E. Stewart, Inc., 3301 Ridgewood Ave., Baltimore 15, Md. (H)
 National Paving & Contr. Co., Menlo Dr. & W.M.R.R., Baltimore 15, Md. (H)

Potts & Callahan Constr. Co., 500 W. 29th St., Baltimore 11, Md. (H-Hvy)
 Russell, T. Edgie, Hamilton Ave., Frederick, Md. (H)
 Suburban Engr. & Constr. Co., P. O. Box 187, Branchville, Md. (H-Hvy-RR)
 Thomas, Bennett & Hunter, Inc., 70 John St., Westminster, Md. (H)
 Vandegrift, John I., Co., The, 314 Liberty Trust Bldg., Cumberland, Md. (B)
 Williams Constr. Co., P. O. Box 145, Baltimore 20, Md. (H-Hvy-RR)

20. MASSACHUSETTS**(a) NEW ENGLAND MARINE CONTRACTORS CHAPTER**

President—Walter G. Cheever, Blakeslee Rollins Corp., 57 Taylor St., Neponset 22, Boston, Mass.

Secretary—Wm. J. Power, Roy B. Rendle & Co., Inc., 364 Border St., East Boston 28, Mass.

Treasurer—Frank M. Gosbee, Roy B. Rendle & Co., Inc., 364 Border St., East Boston 28, Mass.

Telephone: East Boston 7-0490

Bay State Dredg. & Contr. Co., 62 Condor St., East Boston 28, Mass. (Hvy)
 Beattie Corp., The, 209 Bedford St., Fall River, Mass. (B-Hvy)
 Blakeslee Rollins Corp., 57 Taylor St., Neponset 22, Boston, Mass. (Hvy)
 Buck-MacDonald Co., 88 Broad St., Boston 10, Mass. (Hvy)
 Crandall Engr. Co., 261 Franklin St., Boston 10, Mass. (Hvy-RR)
 Ellis, Wm. H., & Son Co., 479 Meridian St., East Boston 28, Mass. (Hvy)
 M. & R. Constr. Co., 139 Coleridge St., East Boston, Mass. (Hvy)
 McKie Lighter Co., 470 Atlantic Ave., Boston 10, Mass. (Hvy)
 Merritt-Chapman & Scott Corp., New London, Conn. (Hvy)
 Mohr, Henry, 31 St. James Ave., Boston 16, Mass. (Hvy)
 Rendle, Jas. B., Co., 1 Salem St., Malden 48, Mass. (Hvy)
 Rendle, Roy B., & Co., Inc., 364 Border St., East Boston 28, Mass. (Hvy)
 Seaboard Constr. Co., 201 Marginal St., Chelsea 50, Mass. (Hvy)
 Stuart, T., & Son Co., 70 Phillips St., Watertown 72, Mass. (Hvy-RR)

(b) ASSOCIATED GENERAL CONTRACTORS OF MASSACHUSETTS

President—Chas. B. Solomon, Geo. B. H. Macomber Co., Inc., 19 Milk St., Boston 9, Mass.

Acting Executive Secretary—Thomas Gunning, 73 Tremont St., Rms. 314-317, Boston 8, Mass.

Telephone: Richmond 2-0400

Aberthaw Co., 80 Federal St., Boston 10, Mass. (B)
 Bailey, Wm. M., Co., 209 Washington St., Boston 8, Mass. (B)

Barker, Walter H., Inc., 23 Main St., Taunton 12, Mass. (B-Hvy)
 Batson, C. A., Co., 26 Arlington St., Brockton, Mass. (B)
 Beacon Constr. Co., 102 Hano St., Allston 34, Mass. (B)
 Bennett, Jos. E., Co., Inc., 105 Newbury St., Boston 16, Mass. (B)
 Bennett-Stewart Co., Inc., 105 Newbury St., Boston 16, Mass. (B)
 Bond Bros., Inc., 77 Ferry St., Everett 49, Mass. (B)
 Bossi Constr., Inc., 43 Leon St., Boston 15, Mass. (B)
 Clark, John R., & Assoc., Inc., 73 Main St., Cambridge 42, Mass. (B)
 Clark, Richard F., Co., 67 Rogers St., Cambridge 42, Mass. (B)
 Conti & Donahue, 239 Commercial St., Lynn, Mass. (B)
 Dwan Constr. Co., 29 Bay St., Dorchester 25, Mass. (B-Hvy)
 Eisenberg, Eugene R., Inc., 30 Huntington Ave., Boston 16, Mass. (B)
 Farina Bros., 429 Watertown St., Newton 58, Mass. (B-Hvy)
 Granger Contr. Co., Inc., 306 Main St., Worcester 8, Mass. (B)
 Griffin, John F., Co., 238 Main St., Cambridge 42, Mass. (B)
 Hawkins, H. H., & Sons Co., 236 Washington St., Newton 58, Mass. (B)
 Hew Constr. Co., 684 Washington St., Boston 11, Mass. (B)
 Horn Bros., Inc., 23 Miner St., Boston 15, Mass. (B)
 Hyndman, Earle L., 20 Beacon St., Boston 8, Mass. (B)
 Industrial Engr., Co., 145 Pinckney St., Boston 14, Mass. (B)
 Jacobucci, R. R., Inc., 28 Dayton St., Box 364, West Quincy 69, Mass. (B)
 Kelliher, Jas. S., 1245 Hancock St., Quincy 69, Mass. (B)
 Logue, Chas., Bldg. Co., 331 Newbury St., Boston 15, Mass. (B)
 Loranger, Theo., & Sons, 404 Nash Rd., New Bedford, Mass. (B-Hvy)
 Macomber, Geo. B. H., Co., Inc., 19 Milk St., Boston 9, Mass. (B)
 Maguire, Jos. T., Co., Inc., 140 Glenwood St., Lowell, Mass. (B-Hvy)
 Marden, Edw. R., Corp., 233 Harvard St., P. O. Box 87, Brookline 46, Mass. (B)
 Martin, L., & Son, 17 Nassau St., Boston 11, Mass. (B)
 Martiniello, Louis, & Son, 49 Dighton St., Brighton 35, Mass. (B)
 Mozzicato Constr. Co., 168 Mystic Ave., Medford 55, Mass. (B)
 Mulcare, Thos., Corp., 66 Western Ave., Boston 34, Mass. (B-Hvy)
 Olson & Appleby, 222 Union St., New Bedford, Mass. (B)
 Page Constr. Co., 20 Pemberton Sq., Boston 8, Mass. (B)
 Park Constr. Co., Inc., 40 Court St., Boston 8, Mass. (B)

MASSACHUSETTS—Continued

Piper Bros., 580 Massachusetts Ave., Cambridge, Mass. (B)
 Platt Contr. Co., Inc., 99 1st St., East Cambridge 41, Mass. (B-Hvy)
 Poley-Abrams Corp., 2 Elm Pl., Brookline Village 46, Mass. (B)
 Porter, Wm. H., Co., Inc., 84 Arsenal St., Watertown 72, Mass. (B)
 Potter-Horn, Inc., 1129 Statler Bldg., Boston 16, Mass. (B)
 Rappoli, Edmund J., Co., Inc., 515 Massachusetts Ave., Cambridge 39, Mass. (B)
 Ritchie, Walter L., 1 Salem St., Malden 48, Mass. (B)
 Runels, R. E., Constr. Co., 515 Chalfoux Bldg., 24 Merrimack St., Lowell, Mass. (B)
 Sawyer Constr. Co., 31 St. James Ave., Boston 16, Mass. (B)
 Sciaba & Co., 86 Shawmut Ave., Boston 16, Mass. (B)
 Shuman Constr. Co., 32 Supple Rd., Boston 21, Mass. (B)
 Slotnick, M., Corp., 333 Washington St., Boston 8, Mass. (B)
 Slotnick, J., Co., 99 Chauncy St., Boston 11, Mass. (B)
 Smith, Jas. S., Co., Inc., 263 Washington St., Newton 58, Mass. (B)
 Sullivan-Foster, Inc., 28 Nauset St., New Bedford, Mass. (B-Hvy)
 Thompson-Starrett Co., Inc., 444 Madison Ave., New York 22, N. Y.
 Tocci Bros. Constr. Co., 38 Colonial Ave., Newtonville 60, Mass. (B)
 Tredennick-Billings Co., The, 10 High St., Boston 10, Mass. (B-Hvy)
 Turner Construction Co., 38 Newbury St., Boston 16, Mass. (B)
 Tuttle, Morton C., Co., 862 Park Square Bldg., Boston 16, Mass. (B)
 Vappi & Co., Inc., 240 Sidney St., Cambridge 39, Mass. (B)
 Vara Constr., Inc., 718 Huntington Ave., Boston 15, Mass. (B)
 Volpe Constr. Co., 54 Eastern Ave., Malden 48, Mass. (B)
 Volpe, S., & Co., Inc., 185 Devonshire St., Boston 10, Mass. (B)
 Wexler Constr. Co., Inc., 2 Elm Pl., Brookline 46, Mass. (B)
 White Constr. Co., Inc., 134 Newbury St., Boston 16, Mass. (B)
 White, Richard, Sons, Inc., 70 Crescent St., West Newton 65, Mass. (B-Hvy)
 Wile, Henry E., Co., 862 Walnut St., Newton Centre 59, Mass. (B)

Local Members

Bianchi, Carlo, and Company, Inc., 24 Union Ave., Framingham, Mass. (H-Hvy-RR)
 Cross, E. J., Company, 150 Prescott St., Worcester 5, Mass. (B)
 Cummings, H. P., Constr. Co., 14 Prospect St., Ware, Mass. (B-Hvy)
 O'Connell's, Daniel, Sons, Inc., 480 Hampden St., Holyoke, Mass. (B-H-Hvy)

21. MICHIGAN

(a) DETROIT CHAPTER

President—Chas. H. Richert, J. A. Utley Co., Box 6, North End Sta., Detroit 2, Mich.
Secretary-Manager—Ralph A. MacMullan, 1437-8-9 Book Bldg., Detroit 26, Mich.
Telephone: Woodward 2-6297-8
 Albrecht, Albert A., Co., The, 1217 Penobscot Bldg., Detroit 26, Mich. (B)
 Atkin-Ford Co., 7360 W. Chicago Ave., Detroit 4, Mich. (B)
 Auch, Geo. W., Co., 3646 Mt. Elliott Ave., Detroit 7, Mich. (B)
 Barton-Malow Co., McKerchey Bldg., 2631 Woodward Ave., Detroit 1, Mich. (B)
 Bass Engr. & Constr. Co., Birmingham Theatre Bldg., Birmingham, Mich. (B-Hvy-RR)
 Birmingham Constr. Co., 208 Hanna Bldg., Birmingham, Mich. (B-Hvy)
 Bryant & Detwiler Co., 2110 Penobscot Bldg., Detroit 26, Mich. (B-Hvy-RR)
 Burke, O. W., Co., 1032 Fisher Bldg., Detroit 2, Mich. (B-Hvy)
 Commercial Contr. Corp., 12160 Cloverdale Ave., Detroit 4, Mich. (B-Hvy)
 Cooley, John, Co., 509 Fox Bldg., Detroit 1, Mich. (B)
 Couse, Walter L., & Co., 12740 Lyndon Ave., Detroit 27, Mich. (B-H-Hvy)
 Currie, Thos. E., Co., The, 2531 Conner Ave., Detroit 14, Mich. (H-Hvy)
 Darin & Armstrong, Inc., 2041 Fenkell Ave., Detroit 3, Mich. (B-H-Hvy-RR)
 Denton Constr. Co., 7-170 General Motors Bldg., Detroit 2, Mich. (H)
 Esslinger, Wm., Constr. Co., 159 E. Columbia Ave., Detroit 1, Mich. (B)
 Faulkner Constr. Co., 1376 E. Bennett, Ferndale 20, Mich. (B)
 Fletemeyer, F. R., 3343 Gratiot Ave., Detroit 7, Mich. (B)
 Fredman, J. A., 735 S. Paddock St., Pontiac 19, Mich. (B)
 HRC Constr. Co., 24518 Ecorse Rd., Inkster, Mich. (B)
 Hamer Bros., Inc., 317 Curtis Bldg., Detroit 2, Mich. (H-Hvy-RR)
 Industrial Constr. Co., 20515 Hoover Rd., Detroit 5, Mich. (B)
 Jutton-Kelly Co., 13240 Alber Ave., Dearborn, Mich. (Hvy-RR)
 Kaufmann, W. J. C., Co., 10610 Shoemaker Ave., Detroit 13, Mich. (B)
 Kuhlman, Leo E., Inc., 9716 Conner Ave., Detroit 5, Mich. (B)
 Kutsche, A. W., & Co., 2924 W. Grand Blvd., Detroit 2, Mich. (B)
 Leto Constr. Co., 15324 Mack Ave., Detroit 24, Mich. (B)
 Martens, Henry M., Co., 2111 Woodward Ave., Detroit 1, Mich. (B)
 Martin, F. H., Constr. Co., 955 E. Jefferson Ave., Detroit 7, Mich. (B)
 McManus, R. H., & Co., 16100 W. 8 Mile Rd., Detroit 35, Mich. (Hvy)
 Misch, Arthur O., Co., 17731 Van Dyke Ave., Detroit 34, Mich. (B)

Nicholson Co., The, 10 Rockefeller Plaza, New York 20, N. Y. (B)
 Palmer-Smith Co., 415 Brainard St., Detroit 1, Mich. (B)
 Rogers, Chas. J., Inc., 14836 Grand River Ave., Detroit 27, Mich. (H-Hvy)
 Smith, Alfred A., 721 E. Saratoga Ave., Ferndale 20, Mich. (B-Hvy)
 Stibbard Constr. Co., 9100 Central, Detroit 4, Mich. (B)
 Storen, W. J., Co., 2411 14th St., Detroit 16, Mich. (B-H-RR)
 Taylor, F. H., Co., 17360 Lahser Rd., Detroit 19, Mich. (B)
 Thompson-Schmidt Co., The, 18425 James Couzens Hwy., Detroit 21, Mich. (B)
 Turner Constr. Co.-Barton-Malow Co., Stewart & Grove Sts., P. O. Box 207, Ypsilanti, Mich. (B)
 Utley, J. A., Co., Box 6, North End Sta., Detroit 2, Mich. (B-H-Hvy-RR)
 Walbridge, Aldinger Co., 409 Griswold St., Detroit 26, Mich. (B-H-Hvy-RR)
 Wermuth, Inc., 1036 St. Mary's Ave., Fort Wayne 7, Ind. (B-Hvy)
 Westphal, John C., Co., 12274 Coyle, Detroit 27, Mich. (B)
 Wood, W. E., Co., 4649 Humboldt Ave., Detroit 8, Mich. (B)

(b) MICHIGAN CHAPTER

President—Ralph O. Dunn, Strom Constr. Co., P. O. Box 86, 625 1st St. N. W., Grand Rapids, Mich.
Secretary-Manager—George W. Combs, 127 N. Cedar St., Lansing 29, Mich.
Telephone: 2-1631
 Alstrom Constr. Co., 22 W. Western Ave., Muskegon, Mich. (B)
 Barnes Constr. Co., 1310 Wallen Ave., S. W., Grand Rapids, Mich. (B)
 Beckering Constr. Co., 2140 Horton Ave., S. E., Grand Rapids 7, Mich. (B)
 Braun, Carl & Son, 606 McBride St., Jackson, Mich. (B)
 Carpenter, Hugh J., & Sons, Inc., 410 Tussing Bldg., Lansing, Mich. (B)
 Christman Co., The, 408-410 Kalamazoo Plaza, Box 536, M. O., Lansing, Mich. (B-H-Hvy)
 Clark Constr. Co., Inc., 216 N. Bridge St., Grand Ledge, Mich. (B-Hvy)
 Datema, Geo., & Sons, 1560 Taylor Ave., N. E., Grand Rapids, Mich. (B)
 deKoning, Henry, Constr. Co., Municipal Court Bldg., Ann Arbor, Mich. (B)
 Elzinga & Volkers, 222 River Ave., Holland, Mich. (B)
 Foster, Karl B., 1015 S. Saginaw St., Flint, Mich. (B)
 Foster Schermerhorn Foster, Inc., 701 S. Holmes St., Lansing, Mich. (B)
 Granger Bros., 2702 S. Cedar St., Lansing 10, Mich. (B)
 Gregory-Roth-Schenker Corp., The, Empire State Bldg., New York, N. Y. (B)
 Heineman, J. R., & Sons, Inc., 1224 N. Niagara St., Saginaw, Mich. (B)
 Herlihy Mid-Continent Company, Box A, Comstock, Mich. (B-H-Hvy-RR)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MICHIGAN—Continued

Hungerford Constr. Co., 2821 McCain Rd., Jackson, Mich. (B)
 Kutchins & Brayton Co., 1022 E. Michigan Ave., P. O. Box 148, Lansing, Mich. (B)
 McCready & Sons, Box 185, Gaylord, Mich. (B)
 Miller-Davis Co., 1029 Portage St., Kalamazoo, Mich. (B-Hvy)
 Muskegon Constr. Co., 838 Jefferson St., P. O. Box 206, Muskegon, Mich. (B)
 North-Moller Co., 403 N. Jackson St., Jackson, Mich. (B-Hvy)
 Owen-Ames-Kimball Co., 38 Pearl St., N. W., Grand Rapids 2, Mich. (B-Hvy)
 Pearson Constr. Co., Inc., 240 W. Britain Ave., Benton Harbor, Mich. (B)
 Phelps-Wagner Bldrs., 731 Capital Ave., N. E., Battle Creek, Mich. (B)
 Reniger Constr. Co., Box 688, M. O., Lansing 3, Mich. (B-Hvy)
 Shoemaker, Frank L., 511 E. Main St., Sturgis, Mich. (B)
 Sorensen-Gross Constr. Co., 2505 Lapeer St., Flint, Mich. (B)
 Stevens, Ray, Co., The, 440 W. Ransom St., Kalamazoo, Mich. (B)
 Strom Constr. Co., P. O. Box 86, 625 1st St., N. W., Grand Rapids, Mich. (B-Hvy)
 Strom & Strom, 1770 6th St., Muskegon, Mich. (B)
 Townsend & Bottum, Inc., 1791 S. State St., P. O. Box 368, Ann Arbor, Mich. (B-Hvy)
 Trier, Fred C., Constr. Co., Box 237, W. S., 1401 Brockway, Saginaw, Mich. (B)

(c) MICHIGAN ROAD BUILDERS ASSOCIATION

President—Carl E. Goodwin, Carl Goodwin & Sons, 500 Delano St., Allegan, Mich.
Executive Secretary—C. J. Carroll, 2003 Olds Tower, Lansing 8, Mich.
 A & A Asphalt Paving Co., 1045 Haynes St., Birmingham, Mich. (H)
 Alpine Constr. Co., Box 337, St. Ignace, Mich. (H)
 Ann Arbor Constr. Co., 221 Felch St., Ann Arbor, Mich. (B-Hvy-RR)
 Atletwed, F. C., Box 175, Rt. 2, St. Clair, Mich. (B-Hvy-RR)
 Ayling Asphalt & Paving Co., 306 College Ave., Adrian, Mich. (H)
 Bacco Constr. Co., Iron Mt. Home Furn. Bldg., Iron Mountain, Mich. (H-Hvy-RR)
 Blue Water Excavating Co., 1821 Elmwood St., Port Huron, Mich. (H)
 Boyd, H. R., Co., Inc., 22285 Michigan Ave., Dearborn, Mich. (H-Hvy)
 Brady, E. P., & Co., 600 Citizens Bank Bldg., Flint 3, Mich. (H)
 Bridges, C. G., Escanaba, Mich. (H-RR)
 Brighton & Wing, 17601 Coral Gables, Birmingham, Mich. (H)
 Bryant & Detwiler Co., 2110 Penobscot Bldg., Detroit 26, Mich. (B-Hvy)
 Cadillac Asphalt Paving Co., 12490 Evergreen Rd., Detroit 23, Mich. (H-RR)
 Canonie Excavating Co., Covert, Mich. (H)

Carothers, John, 830 W. Main St., Fremont, Mich. (H)
 Cheney, F. C., Williamston, Mich. (H)
 Comstock, Glenn A., P. O. Box 172, Bay City, Mich. (H)
 Cooke Contr. Co., The, 1116 Penobscot Bldg., Detroit 26, Mich. (H-Hvy)
 Couper, Wm. M., Co., 1408 Iroquois Ave., Ann Arbor, Mich. (H)
 Crossman-McCoy, Inc., Sodus, Mich. (H)
 Currie, Thos. E., Co., The, 2531 Conner Ave., Detroit 14, Mich. (H)
 Darin & Armstrong, Inc., 2041 Fenkell Ave., Detroit 3, Mich. (B-Hvy)
 Davidson, L. A., 213 E. St. Joseph St., Lansing 15, Mich. (H-Hvy-RR)
 Denton Constr. Co., 7-170 General Motors Bldg., Detroit 2, Mich. (H)
 Detroit Asphalt Paving Co., 702 Transportation Bldg., Detroit 26, Mich. (H)
 Detroit Concrete Prods. Corp., 19209 W. Davison Ave., Detroit 23, Mich. (H)
 Drainage Contrs., Inc., 22148 Michigan Ave., Dearborn, Mich. (H-Hvy)
 Dyer, A. L., & Sons, McBrides, Mich. (H)
 East Shore Asphalt Paving Co., P. O. Box 181, Alpena, Mich. (H)
 Edison, L. W., 924 Floral Dr., S. E., Grand Rapids 6, Mich. (H)
 Eisenhour Constr. Co., 1056 E. Grand River Ave., East Lansing, Mich. (H)
 Ferris Co., The, 1119 E. Ash St., Mason, Mich. (H)
 Fitch-Eva Co., The, 223 W. Grand River Ave., Howell, Mich. (H)
 Flynn Contr. Co., 10314 Puritan Ave., Detroit 21, Mich. (H)
 Fox Valley Constr. Co., State Bank Bldg., Appleton, Wis. (H)
 Frank, D. T., Constr. Co., 424 Clifton Blvd., East Lansing, Mich. (H)
 Frisinger, John H., Inc., 1400 Linwood Ave., Ann Arbor, Mich. (H)
 Frisinger, Max R., 1724 S. University Ave., Ann Arbor, Mich. (H)
 Fry & Kain, P. O. Box 456, Lansing 2, Mich. (H-Hvy)
 Garavaglia, Louis, 24240 Mound Rd., Centerline, Mich. (H-Hvy-RR)
 General Paving Constr. Co., 235 Union Ave., S. E., Grand Rapids 6, Mich. (H)
 Getman Bros., South Haven, Mich. (B-Hvy)
 Gilliland Constr. Co., Rt. 2, Alpena, Mich. (H)
 Gillisse, John & Paul, Grandville, Mich. (H)
 Globe Constr. Co., 312 Peck Bldg., Kalamazoo, Mich. (H)
 Gooding, O. E., & Co., 714 Collegewood, Ypsilanti, Mich. (H)
 Goodwin, Carl & Sons, 500 Delano St., Allegan, Mich. (H-RR)
 Gould & Cross, 3849 Three Mile Rd., N. E., Grand Rapids, Mich. (H)
 Graft, E. W., Constr. Co., 2870 Harrison St., Saginaw, Mich. (H)
 Grand Rapids Asphalt Paving Co., 341 Market Ave., S. W., Grand Rapids 3, Mich. (H)
 Harris-McBurney Co., 297 W. Michigan Ave., Jackson, Mich. (H)
 Harvie, Wm. H., 28450 Santa Barbara Dr., Birmingham 21, Mich. (H)
 Hertel & Deyo Co., 5205 Division Ave., So., Grand Rapids 8, Mich. (H-Hvy)
 Hicks Co., The, 630 E. Superior St., Alma, Mich. (H)
 Hobeck, J. W., R.F.D. #1, Holland, Mich. (H)
 Hodgkiss & Douma, Box 311, Petoskey, Mich. (B-Hvy-RR)
 Horning, Roy, Inc., 625 W. 2d St., Flint, Mich. (H)
 Hull, Clarence A., Dryden, Mich. (H-Hvy-RR)
 Hunt, C. R., Cass City, Mich. (H)
 Jackson, John K., Rt. 2, Box 390, Ironwood, Mich. (H)
 Jarvick, E., Constr. Co., 18285 Littlefield, Detroit 35, Mich. (H)
 Johnson-Greene Co., 616 Ann Arbor Trust Bldg., Ann Arbor, Mich. (H-Hvy)
 Jutton-Kelly Co., 13240 Alber Ave., Dearborn, Mich. (H-Hvy-RR)
 Kalkman, Neil & Al, Constr. Co., 673 Central Ave., Holland, Mich. (H)
 Kebbe, Ray, Warren, Mich. (H)
 Knapp, Walter, Box 593, Monroe, Mich. (H-Hvy-RR)
 Lamb, L. W., Co., 1025 S. Shore Dr., Holland, Mich. (H-Hvy-RR)
 Leffler, A. S., Gravel Co., 112 S. State St., Davison, Mich. (H)
 Leonard Constr. Co., 315 Miller St., Saginaw, Mich. (H)
 Lewis & Frisinger Co., The, 214 E. Madison St., Ann Arbor, Mich. (B-Hvy-RR)
 Lindberg, A., & Sons, Ishpeming, Mich. (H-Hvy-RR)
 Loomis, C. M., 415 Murray Bldg., Grand Rapids 2, Mich. (H)
 Loselle Constr. Co., Box 1001, Wyandotte, Mich. (H)
 Luedtke Engr. Co., Box 111, Frankfort, Mich. (H-Hvy)
 Maclean Constr. Co., 706 E. Sheridan St., Lansing 6, Mich. (H)
 McNally Constr. Co., 2809 Maplewood, Saginaw 38, Mich. (H-Hvy)
 McNally, W. F., Co., Bridgeport, Mich. (H)
 Meagher, W. J., & Sons, 24th & Water Sts., Bay City, Mich. (H-Hvy-RR)
 Metcalfe, D. M., Constr. Co., Bennington, Mich. (H)
 Meyer, Robt. Wm., 622 E. Chapin St., Cadillac, Mich. (B-H)
 Mid-America Engr. Corp., 4922 Dempster St., Skokie, Ill. (H)
 Midland Contr. Co., 145 Rodd St., Midland, Mich. (H)
 Miller, Paul C., 101 N. Park St., Comstock Park, Mich. (H)
 Muehlenbeck, Wm. J., 1253 S. Water St., Saginaw, Mich. (H-Hvy-RR)
 Nagelkirk & Ranta, 2550 Chicago Dr., S. W., Grand Rapids 9, Mich. (H)
 Nolan, E. C., Co., 8121 Warren Blvd., Centerline, Mich. (H-RR)
 Oak Constr. Co., 220 E. 7th St., Royal Oak, Mich. (B-Hvy-RR)
 Payne & Dolan of Wisconsin, Inc., 1138 1st Wisconsin National Bank Bldg., Milwaukee 2, Wis. (H)

A.G.C. DIRECTORY

MICHIGAN—Continued

Pickitt, Harry, 409 Hubbard St., Allegan, Mich. (H)
 Pierson Contr. Co., 200 Eddy Bldg., Saginaw, Mich. (H)
 Plozai, Jos., Inc., 4329 Central Ave., Detroit 10, Mich. (H)
 Porath, Julius, & Son Co., 702 Transportation Bldg., Detroit 26, Mich. (H)
 Posthumus, Gerritt, 35456 Van Born Rd., Wayne, Mich. (H)
 Price, Fred H., 1330 N. Genesee Dr., Lansing, Mich. (H)
 Proksch Constr. Co., Iron River, Mich. (B-H-Hvy-RR)
 Raff & Dexter, 210 W. Greenlawn, Lansing 10, Mich. (H)
 Rieth-Riley Constr. Co., P. O. Box 477, W. Madison St., Goshen, Ind. (H)
 Roberts, R. W., & Co., P. O. Box 2114, Dearborn, Mich. (H)
 Rogers, Chas. J., Inc., 14836 Grand River Ave., Detroit 27, Mich. (H-Hvy)
 Sablain, Ray, 2827 S. Cedar St., Lansing 9, Mich. (H)
 Sachs & Kaufman, 724 Lafayette Bldg., Detroit 26, Mich. (H)
 Sargent, B. H., 173 N. 2d, West Branch, Mich. (H-Hvy-RR)
 Sargent Constr. Co., 2840 Bay Rd., Saginaw, Mich. (B-H-Hvy-RR)
 Schwaderer, E. B., & Co., P. O. Box 157, Cass City, Mich. (H)
 Schworm, Ivan W., Peninsula Shores Park, Grawn, Mich. (H)
 Shingledecker, H. C., 34 Dakota St., Pontiac, Mich. (H)
 Storen, W. J., Co., 2411 14th St., Detroit 16, Mich. (H-Hvy)
 Straits Constr. Co., 1st National Bank Bldg., St. Ignace, Mich. (H)
 Sugden & Sivier, Inc., P. O. Box 6, Hazel Park, Mich. (H)
 Taber-Carmody Co., 125 Front Ave., N. W., Grand Rapids 4, Mich. (H-RR)
 Taylor Bros. Co., Inc., 985 Haynes St., Birmingham, Mich. (H)
 Thornton Constr. Co., 1028 Ethel Ave., Hancock, Mich. (H)
 Toebe, Walter, & Co., P. O. Box 761, Lansing 3, Mich. (H-Hvy)
 Toth Constr. Co., 1044 8th St., Muskegon Heights, Mich. (H)
 Vander Veen, E. J., 2910 Plainfield Ave., Grand Rapids 5, Mich. (H)
 Vander Veen, P., & Sons, 2020 Newark, S. E., Grand Rapids 7, Mich. (H)
 Vinton Constr. Co., Coldwater, Mich. (H)
 Walser, John F., 3821 Pontiac Lake Rd., Pontiac, Mich. (H)
 Weir Contr. Co., 12592 Inkster Rd., Detroit 28, Mich. (H)
 West Shore Constr. Co., Zeeland, Mich. (H)
 Whitehead, I. L., Co., 1107 W. Easterday Ave., Sault Ste. Marie, Mich. (H)
 Wright Constr. Co., Williamston, Mich. (H-Hvy)
 Yerington, John G., Territorial Rd., R.F.D. #2, Benton Harbor, Mich. (H)

(d) UPPER PENINSULA MICHIGAN CHAPTER

President Pro Tem—Herman Gundlach, Herman Gundlach, Inc., Houghton, Mich.
Secretary-Treasurer Pro Tem—Robert E. Dodd, Cox-Dodd Constr. Co., P. O. Box 412, Sault Ste. Marie, Mich.
 Arntzen, Erling, 1524 8th Ave., Escanaba, Mich. (B)
 Brandt, Alfred, 705 S. 14th St., Escanaba, Mich. (B)
 Champion, Inc., Constr. Div., P. O. Box 231, Iron Mountain, Mich. (B)
 Cox-Dodd Constr. Co., P. O. Box 412, Sault Ste. Marie, Mich. (B)
 Gundlach, Herman, Inc., Houghton, Mich. (B)
 Kaysner Constr. Co., 711 W. Spruce St., Sault Ste. Marie, Mich. (B)
 Kielinen & Sons, 411 E. Pearl St., Ishpeming, Mich. (B)
 MacDonald Constr. Co., Inc., Marquette, Mich. (B)
 Menze, Franz, 208 Hampton St., Marquette, Mich. (B)
 Salen, Albert H., 1609 16th Ave., Menominee, Mich. (B)

22. MINNESOTA

(a) ASSOCIATED GENERAL CONTRACTORS OF MINNESOTA

President—Geo. F. Cook, Geo. F. Cook Constr. Co., 2833 Lyndale Ave., So., Minneapolis 8, Minn.
Manager—R. J. Hendershott, 910 Builders Exchange Bldg., Minneapolis 2, Minn.
Telephone: Atlantic 0804
 Eian & Ness, 407 Stanton Ave., Fergus Falls, Minn. (B)
 Eickhof, Otto J., & Sons, Inc., Crookston, Minn. (B)
 Fowler-Veranth Constr. Co., 303 S. 1st Ave., E., Duluth 2, Minn. (B)
 Hasslen Constr. Co., Inc., Ortonville, Minn. (B)
 Helmer, Stanley S., 713 3d Ave., E., Grand Rapids, Minn. (B)
 Hirt, Edw. G., 420 8th St., So., St. Cloud, Minn. (B)
 Home Bldrs. Co., St. Cloud, Minn. (B)
 LaFond, Marcel, 615 1st St., S. E., Little Falls, Minn. (B)
 Larson Constr. Co., Pelican Rapids, Minn. (B)
 Lenci, Lenci & Englund, Inc., 1021 2d Ave., So., Virginia, Minn. (B)
 McDonald Constr. Co., 423 S. 7th St., Brainerd, Minn. (B)
 Nasvik Constr. Co., 315 Park Ave., Bemidji, Minn. (B)
 Nelson, Bennie H., Constr. Co., 116 W. 7th St., Red Wing, Minn. (B)
 Stavn, H. L., Co., Inc., 2521 1st Ave., Hibbing, Minn. (B)

(Minneapolis Builders Division)

Adams Constr. Co., 2837 Girard Ave., So., Minneapolis 8, Minn. (B)
 Anderberg, O. R., Co., 2923 Oakland Ave., So., Minneapolis 7, Minn. (B)
 Bass, Jos. A., Co., 332 Sexton Bldg., Minneapolis 15, Minn. (B)
 Cederstrand, August, Co., 966 Central Ave., Minneapolis 13, Minn. (B)
 Comb, Fred R., Co., 2113 Chicago Ave., Minneapolis 4, Minn. (B)
 Cook, Geo. F., Constr. Co., 2833 Lyndale Ave., So., Minneapolis 8, Minn. (B)
 Crawford-Merz Co., 2316 4th Ave., So., Minneapolis 4, Minn. (B)
 Dean Constr. Co., 2122 Penn Ave., So., Minneapolis 5, Minn. (B)
 Field, C. O., Co., 2940 Harriet Ave., Minneapolis 8, Minn. (B)
 Fleisher Engr. & Constr. Co., 1250 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Ganley, Ernest M., Co., Inc., 2922 Oakland Ave., Minneapolis 7, Minn. (B)
 General Service, Inc., 602 Thorpe Bldg., Minneapolis 2, Minn. (B)
 Giertsen, Walter D., Co., 900 Glenwood Ave., Minneapolis 5, Minn. (B-H)
 Haglin, C. F., & Sons, Co., 123 Bryant Ave., No., Minneapolis 3, Minn. (B)
 Jensen Constr. Co., P. O. Box 965, Richfield Br., Minneapolis 19, Minn. (B)
 Johnson, C. O., Constr. Co., 650 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Knutson Constr. Co., 3000 E. Hennepin Ave., Minneapolis 13, Minn. (B)
 Kraus-Anderson, Inc., 501 S. 8th St., Minneapolis 15, Minn. (B)
 Laurence, Paul A., Co., 416 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Lebeck & Co., 540 Baker Bldg., Minneapolis 2, Minn. (B)
 Leck, D'Arcy, Constr. Co., 2838 Stevens Ave., Minneapolis 8, Minn. (B)
 Leck, Jas., Co., 211 S. 11th St., Minneapolis 2, Minn. (B)
 Leighton, H. N., Co., 716 S. 7th St., Minneapolis 15, Minn. (B)
 Libbey & Libby Co., 244 2d Ave., So., Minneapolis 1, Minn. (B)
 Madsen Constr. Co., 2110 Nicollet Ave., Minneapolis 4, Minn. (B)
 McKenzie-Hague-Simmons Co., 1116 Flour Exchange Bldg., Minneapolis 15, Minn. (B)
 Midwest Contr. Co., 2944 17th Ave., So., Minneapolis 7, Minn. (B)
 Naugle-Leck, Inc., 714 Baker Bldg., Minneapolis 2, Minn. (B)
 Northwestern Constr. Co., 2710 Nicollet Ave., Minneapolis 8, Minn. (B)
 Peterson Constr. Co., 620 National Bldg., Minneapolis 2, Minn. (B)
 Stahr Co., The, 914 Marquette Ave., Minneapolis 2, Minn. (B)
 Standard Constr. Co., Inc., 250 Builders Exchange Bldg., Minneapolis 2, Minn. (B)
 Watson, Fred O., Co., 404 Baker Bldg., Minneapolis 2, Minn. (B)

(Symbols following names indicate type of construction performed by company: B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MINNESOTA—Continued

Witcher, Dean L., Inc., 542 Builders Exchange Bldg., Minneapolis 2, Minn. (B)

(St. Paul Builders Division)

Baumeister, Wm., Constr. Co., 635 Hamm Bldg., St. Paul 2, Minn. (B)
 Fridholm Constr. Co., 1795 St. Clair Ave., St. Paul 5, Minn. (B)
 Fuel Economy Engr. Co., 508-512 New York Bldg., St. Paul 1, Minn. (B)
 Hurley, Gene, Constr. Co., 403 S. Robert St., St. Paul 7, Minn. (B)
 Jensen, Chris, Co., 1385 Selby Ave., St. Paul 4, Minn. (B)
 Johnson, Jos. E., & Son, 477 Selby Ave., St. Paul 2, Minn. (B)
 Kraus-Anderson of St. Paul Co., 190 Ramsey St., St. Paul 2, Minn. (B)
 Loving Constr. Co., 616 Guardian Bldg., St. Paul 1, Minn. (B)
 Murphy, Wm., & Son, 428 New York Bldg., St. Paul 1, Minn. (B)
 Petersen, Lawrence, Constr. Co., 867 N. Dale St., St. Paul 3, Minn. (B)
 Procon, Inc., P. O. Box 267, St. Paul Park, Minn. (B)
 Sauers Constr. Co., Inc., 1255 W. Larpenteur Ave., St. Paul 8, Minn. (B)
 Sault, L. H., 332 1st Federal Bldg., St. Paul 1, Minn. (B)
 Shulgren, Roy A., 2102 Wabash Ave., St. Paul 4, Minn. (B)
 Steenberg Constr. Co., Inc., 1371 Marshall Ave., St. Paul 4, Minn. (B)
 Sweitzer, J. S., & Son, Inc., 739 Pillsbury Ave., St. Paul 4, Minn. (B)

(Southern Minnesota Builders Division)

Anderson, O. J., & Son, 1009 St. Thomas St., Albert Lea, Minn. (B)
 Benike, Alvin E., 330 3d Ave., N. W., Rochester, Minn. (B)
 Diekema, Dick, Constr., Inc., 1316 James Ave., Albert Lea, Minn. (B)
 Foley Constr. Co., 316 E. Main St., Albert Lea, Minn. (B)
 Jensen, Viggo M., Co., P. O. Box 68, Albert Lea, Minn. (B)
 Johnson Constr. Co., 677 Main St., Winona, Minn. (B)
 Kratochvil Constr. Co., New Prague, Minn. (B)
 Pagenhart, C. C., 217½ S. Broadway, Rochester, Minn. (B)
 Petersen, N. A., Constr. Co., 401 S. 3d St., Austin, Minn. (B)
 Schroeder, Paul, 915 4th Ave., Faribault, Minn. (B)
 Schwab, P. Earl, 166 W. 2d St., Winona, Minn. (B)
 Stocke, O. A., & Co., Inc., 115 3d St., S. W., Rochester, Minn. (B)
 Wagner Constr. Co., 406 S. Burr Oak Dr., Austin, Minn. (B)

(Municipal Contractors Division)

Barbarossa & Sons, Inc., 402 33d Ave., No. St. Cloud, Minn. (Hvy)
 Casper-Lyons Co., Grand Rapids, Minn. (Hvy)

Donnelly, I. J., Constr. Co., 612 Drake St., St. Paul 2, Minn. (Hvy)
 Fraser, Carlisle G., 506 N. Prior Ave., St. Paul 4, Minn. (Hvy)
 Jacobs, M. J., & Sons, Bird Island, Minn. (Hvy)
 Lametti & Lametti, Inc., 615 Drake St., St. Paul 2, Minn. (Hvy)
 McNulty, L. J., Inc., 2001 Wentworth Ave., South St. Paul, Minn. (Hvy)
 Nagel, J. J., Perham, Minn. (Hvy)
 Nodland-Alberg Co., Alexandria, Minn. (Hvy)
 Phelps-Drake Co., Inc., 1415 8th St., S. E., Minneapolis 14, Minn. (Hvy)
 Sandstrom & Hafner, 740 E. Superior St., Duluth, Minn. (Hvy)
 Wolff, DeGraff, 2360 University Ave., St. Paul 4, Minn. (Hvy)

(Highway and Heavy Construction Divisions)

Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis 6, Minn. (H)
 Alley, A. L., & Son, Box 387, Faribault, Minn. (H)
 Ashbach, Otto B., & Sons, Inc., 2975 Hamline Ave., No., St. Paul 8, Minn. (H)
 Ashworth & Son Co., 3601 Alabama Ave., Minneapolis 16, Minn. (H)
 Barnes-Mattison, Inc., 905 Metropolitan Life Bldg., Minneapolis 1, Minn. (Hvy)
 Benson, Roy, & Son, Stephen, Minn. (H)
 Biwabik Gravel Co., Inc., 621 9th St., No., Virginia, Minn. (Hvy)
 Blattner, D. H., & Sons, Albany, Minn. (H)
 Bolander, Carl, & Sons Co., 2933 Pleasant Ave., Minneapolis 8, Minn. (H)
 Bolduc, L. H., & Co., 3050 4th Ave., So., Minneapolis 8, Minn. (H)
 Bradbury, P. A., Constr. Co., Wylie Park Rd., Aberdeen, S. Dak. (H)
 Conroy, Dan, & Sons, Collins, Minn. (H)
 Coons, E. W., Co., Inc., P. O. Box 239, Hibbing, Minn. (H-Hvy)
 Craig, Jay W., Co., 1814 N. E. California St., Minneapolis 13, Minn. (H)
 DeRuyter Bros., 1123 Trott Ave., W., Willmar, Minn. (H)
 Dieseth, John, Co., Fergus Falls, Minn. (H)
 Duinick Bros. & Gilchrist, Olivia, Minn. (H)
 Dunn, H. J., Black Top Surfacing Co., Winona, Minn. (H)
 Farrell Contr. Co., 1607 Wynne Ave., St. Paul 4, Minn. (H)
 Fegles Constr. Co., Ltd., 711 Wesley Temple Bldg., Minneapolis 4, Minn. (B-Hvy)
 Feller, L. M., Co., Rochester, Minn. (H)
 Fielding & Shepley, Inc., 1258 Bohn Ave., St. Paul 4, Minn. (H-Hvy)
 Foley Brothers, Inc., 900 New York Bldg., St. Paul 1, Minn. (B-H-Hvy)
 Freeman Constr. Co., Inc., Spring Valley, Minn. (H)
 Ganley, Howard, Inc., 2336 Hampden Ave., St. Paul 4, Minn. (H)
 Groves, Lundin & Cox, Inc., 310 Wesley Temple Bldg., Minneapolis 4, Minn. (Hvy)
 Groves, S. J., & Sons Co., 500 Wesley Temple Bldg., Minneapolis 4, Minn. (H-Hvy)
 Haagensohn & Tranby, McIntosh, Minn. (H)
 Hallett Constr. Co., Crosby, Minn. (H-Hvy)
 Hector Constr. Co., Inc., P. O. Box 107, Caledonia, Minn. (H)
 Herbison Constr. Co., Brainerd, Minn. (H)
 Industrial Contr. Co., 3050 S. 4th Ave., Minneapolis 8, Minn. (H)
 Jeffries Constr. Co., Rt. 1, Mankato, Minn. (H)
 Johnson, Al Construction Co., 608 Foshay Tower, Minneapolis 2, Minn. (H-Hvy)
 Johnson Constr. Co., Litchfield, Minn. (H)
 Johnson, Drake & Piper, Inc., 1138 Baker Bldg., Minneapolis 2, Minn. (B-H-Hvy-RR)
 Joyce, Leon, 220½ 1st Ave., S. W., Rochester, Minn. (H)
 Klehr, L. M., Constr. Co., Inc., 1502 Nicollet Ave., Minneapolis 4, Minn. (H)
 Komatz Constr. Co., St. Peter, Minn. (H)
 Magee, W. W., Co., 1397 Laurel Ave., St. Paul 4, Minn. (B-H-Hvy)
 Mark Sand & Gravel Co., Montgomery Ward Bldg., Fergus Falls, Minn. (H)
 Nelson, C. L., & Co., Inc., 510 N. Bluff, Brainerd, Minn. (H)
 Nelson, Mullen & Nelson, Inc., 355 Gateway Bldg., Minneapolis 1, Minn. (Hvy)
 Nelson, Mullen & Webster, 355 Gateway Bldg., Minneapolis 1, Minn. (H)
 New London Materials & Constr. Co., Carlson Bldg., Willmar, Minn. (Hvy)
 Okes Constr. Co., E. 1501 1st National Bank Bldg., St. Paul 1, Minn. (H-Hvy)
 O'Loughlin & Hansen, 218 1st Ave., S. W., Rochester, Minn. (H)
 Park Constr. Co., 1405 11th Ave., So., Minneapolis 4, Minn. (H)
 Pedersen Bros., Inc., Montevideo, Minn. (H)
 Pederson, P. O., Inc., 2200 Pender Lane, Sioux Falls, S. Dak. (H)
 Peterson, Carl H., Co., 5946 Pleasant Ave., Minneapolis 9, Minn. (H)
 Purtell, Harold, Constr. Co., 317 Hamm Bldg., St. Paul 2, Minn. (B-H-Hvy)
 Reese, Herbert, Greenbush, Minn. (H)
 Sculley, C. F., Constr. Co., 725 Front Ave., St. Paul 3, Minn. (H)
 Skelton, Ray W., Co., Inc., 6540 Lyndale Ave., So., Minneapolis 19, Minn. (H)
 Sorensen Bros., Inc., P. O. Box 246, Albert Lea, Minn. (H)
 Souther, M. E., Constr. Co., 1533 Como Ave., St. Paul 4, Minn. (B-H-Hvy)
 Thorson Constr. Co., Balaton, Minn. (H)
 Ulland Bros., Austin, Minn. (H)
 United Construction Co., 64 W. 5th St., Winona, Minn. (Hvy)
 Volden, Verdie J., Inc., Farmington, Minn. (H)
 Winston Bros. Company, 1470 Northwestern Bank Bldg., Minneapolis 2, Minn. (B-H-Hvy)
 Woodrich Constr., Inc., 201 18th Ave., So., Hopkins, Minn. (H-Hvy)

23. MISSISSIPPI

**(a) MISSISSIPPI VALLEY
FLOOD CONTROL BRANCH**

President—G. W. James, T. L. James & Co., Inc., Box 531, Ruston, La.
Manager—R. W. Crawford, Suite 203, Hotel Peabody, Memphis 3, Tenn.
Telephone: 8-1733

Atlas Constr. Co., Waxahachie, Texas (Hvy)
Blanks, H. B., Constr. Co., Box 37, Vidalia, La. (Hvy)
Clark & Farrell, Brinkley, Ark. (Hvy)
Cohen, S. J., Blytheville, Ark. (Hvy)
Cook Constr. Co., Jackson, Miss. (Hvy)
Cross, Jas. P., 120 Iberia St., New Iberia, La. (Hvy)
Crumpecker, Wm., & Sons, Morehouse, Mo. (Hvy)
Driver Constr. Co., The, 406 Cotton Exchange Bldg., Memphis, Tenn. (Hvy)
Forcum-James Co., Dyersburg, Tenn. (B-Hvy)
Fordice Constr. Co., Rm. 42, Porter Bldg., Memphis, Tenn. (Hvy)
Great Lakes Dredge & Dock Co., 124 Camp St., New Orleans, La. (Hvy)
Hanson, A. J., Co., 1604 Henry St., Pineville, La. (B-Hvy)
Hough-Cowgur & Co., Inc., 320 N. 4th St., St. Louis, Mo. (Hvy)
Hughes Constr. Co., 2962 Robin Rd., Memphis, Tenn.
Hyde Constr. Co., Box 385, Jackson, Miss. (Hvy)
Ingram, W. K., Constr. Co., Box 445, West Memphis, Ark. (Hvy)
Inland Constr. Co., Inc., Rosedale, Miss. (Hvy)
Jahncke Service, Inc., 814 Howard Ave., New Orleans, La. (Hvy)
James, T. L., & Co., Inc., Box 531, Ruston, La. (H-Hvy)
Jones & Buchanan, P. O. Box 2425, Baton Rouge 1, La. (Hvy)
Jones & Gillis, Inc., 607 W. 2d St., Clarksdale, Miss. (Hvy)
Jones, S. K., Constr. Co., Sterick Bldg., Memphis, Tenn. (Hvy)
Killman, Kile, Constr. Co., Inc., 2104 N. State, Jackson, Miss. (Hvy)
List, C. J., Constr. Co., 415 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy)
Luhr Bros., Inc., Columbia, Ill. (Hvy)
Markham & Brown, 1961 N. Industrial Blvd., Dallas, Texas (Hvy)
McAlister-Davis Co., 833 State St., Pine Bluff, Ark. (Hvy)
McWilliams Dredging Company, 903 S. Jefferson Davis Pkwy., P. O. Box 581, New Orleans 7, La. (Hvy)
Mississippi Valley Engr. & Constr. Co., 787 S. Willett, Memphis, Tenn. (Hvy)
Morgan, Edw. E., Co., Inc., P. O. Box 4327, Fondren Sta., Jackson, Miss. (Hvy)
Patton-Tully Transportation Co., N. 2d St., Memphis, Tenn. (Hvy)
Pine Bluff Sand & Gravel Co., P. O. Box 248, Foot of Nebraska St., Pine Bluff, Ark. (Hvy)
Pioneer Constr. Co., Inc., P. O. Box 4696, North Sta., Memphis, Tenn. (Hvy)
Porter-DeWitt Constr. Co., P. O. Box 279, Poplar Bluff, Mo. (Hvy)

Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (Hvy)
Reid, R. J., Contr. Co., P. O. Box 1990, Birmingham, Ala. (Hvy-RR)
Rodgers, H. N., & Sons Co., P. O. Box 750, Memphis, Tenn. (Hvy-RR)
Sanders, L. L., 4414 "I" St., Little Rock, Ark. (Hvy)
Smith, Gerald, Constr. Co., 2975 S. 3d St., Memphis, Tenn. (Hvy)
Stephens, Edgar, & Sons, Inc., 216 10th St., Cairo, Ill. (Hvy)
Tvedt, L. A., 10 N. Main Bldg., Memphis, Tenn. (Hvy)
Vollmer, C. W., & Co., Inc., Cotton Exchange Bldg., Houston, Texas (Hvy)
Walsh & Vollmer Constr. Co., Rt. 5, McKinney, Texas (Hvy)
Walsh-Weaver Constr. Co., Inc., Box 631, Jackson, Miss. (Hvy)
Watts, Cleat T., Rochdale, Miss. (Hvy)
Weymouth Constr. Co., P. O. Box 319, Memphis, Tenn. (Hvy)
Wolfe, Monroe J., 1023 Ridgewood Dr., New Orleans, La. (Hvy)

**(b) ASSOCIATED BUILDING
CONTRACTORS OF MISSISSIPPI**

President—W. W. Howie, Howie Constr. Co., 720 Bratton St., Jackson, Miss.
Manager—Junior O'Mara, P. O. Box 141, Jackson, Miss.
Telephone: 2-0726

Bass, G. E., & Co., P. O. Box 1033, Jackson, Miss. (B)
Beckelheimer, W. T., 427 Eastview St., Jackson 26, Miss. (B)
Campbell Constr. Co., 792 Commerce St., Jackson, Miss. (B)
Dye & Mullings, Inc., P. O. Box 485, Columbia, Miss. (B)
Flint Bros. Constr. Co., 904 Deposit Guaranty Bldg., P. O. Box 1289, Jackson, Miss. (B)
Harvey, L. A., 711 Eagle Ave., Jackson, Miss. (B)
Howie Constr. Co., 720 Bratton St., Jackson, Miss. (B)
Jordan Constr. Co., P. O. Box 973, Jackson, Miss. (B)
King-North Constr. Co., 125 Mayes St., Box 1012, Jackson, Miss. (B)
Reed, M. T., Constr. Co., Millsaps & Wightman Sts., P. O. Box 1066, Jackson, Miss. (B-H)
Thompson, Frank, 114½ N. Farish St., P. O. Box 1051, Jackson, Miss. (B)
Wetmore, W. G., 649 N. Mill St., P. O. Box 63, Jackson, Miss. (B)

**(c) MISSISSIPPI GULF COAST
CHAPTER**

President—J. C. McClendon, Jr., 2126 22d Ave., P. O. Box 807, Gulfport, Miss.
Secretary—T. H. Sneed, Coast Materials Co., P. O. Box 61, Gulfport, Miss.
Coast Materials Co., P. O. Box 61, Gulfport, Miss. (B)
Consolidated Constr. Co., P. O. Box 770, Gulfport, Miss. (B)

Craig, W. M., Bullis Ave. & E. R. R., Gulfport, Miss. (B)
G & K Constr. Co., P. O. Box 548, Pascagoula, Miss. (B)
Gray Constr. Co., P. O. Box 193, Laurel, Miss. (B)
Hoff, Frederick T., 615 Allendale Ave., Gulfport, Miss. (B)
Hopkins, Geo. P., 19th St., & L C R R Co., Gulfport, Miss. (B)
Lacoste, Inc., P. O. Box 824, Gulfport, Miss. (B)
McClendon, J. C., Jr., 2126 22d Ave., P. O. Box 807, Gulfport, Miss. (B)
McDonald, Carl C., Jr., Box 391, Bay Saint Louis, Miss. (B)
Ready Mix Concrete Co., P. O. Box 210, Pascagoula, Miss. (B)
Southern Constr. Co., South High School Ave., P. O. Box 270, Columbia, Miss. (B)

(d) NORTH MISSISSIPPI CHAPTER

President—Lee B. Priester, Jr., L. B. Priester & Son, Box 869, Meridian, Miss.
Secretary—R. L. Priester, L. B. Priester & Son, Box 869, Meridian, Miss.

Building Service Co., West Point, Miss. (B-Hvy)
Frazier Constr. Co., Inc., P. O. Box 2908, Greenville, Miss. (B)
Gily, Louis A., & Sons, Box 782, Laurel, Miss. (B)
Knost, B. L., P. O. Box 267, Meridian, Miss. (B)
McClanahan, D. S., & Son, Box 747, Columbus, Miss. (B)
Priester, L. B., & Son, Box 869, Meridian, Miss. (B)
Roberts Constr. Co., 1013 Washington St., P. O. Box 947, Corinth, Miss. (B)
Staub, J. E., & Co., Fulton, Miss. (B)
Watkins & Snowden, P. O. Box 1930, Meridian, Miss. (B)
Wright & Maugh Constr. Co., 506 W. 2d St., Leland, Miss. (B)

24. MISSOURI

(a) KANSAS CITY CHAPTER

President—Ding Burton, Swenson Constr. Co., 3305 Terrace St., Kansas City 2, Mo.
Secretary—W. W. Hutton, Rialto Bldg., 906 Grand Ave., Kansas City 6, Mo.
Telephone: Victor 8005
Bennett Constr. Co., 3252 Roanoke Rd., Kansas City, Mo. (B)
Brown-Hawkins Constr. Co., 325 Finance Bldg., Kansas City 6, Mo. (B)
Brunn, S. R., Constr. Co., Railway Exchange Bldg., Rm. 710-712, Kansas City 6, Mo. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MISSOURI—Continued

- Chambers-Tarbell, 1643 Bellview, Kansas City 8, Mo. (B)
- Collins Constr. Co., 3160 Fairfax Rd., Kansas City 15, Kans. (B)
- Dasta, Sam. & Son Constr. Co., 715 Charlotte St., Kansas City, 6-E, Mo. (B)
- Dreier & Son Constr. Co., 1123 Quindaro Blvd., Kansas City 2, Kans. (B)
- Dunn, J. E., Constr. Co., 929 Holmes St., Kansas City 6, Mo. (B)
- Ebbe Constr. Co., Trenton, Mo. (B)
- Eldridge Constr. Co., 1043 S. 55th St., Rt. 2, Kansas City, Kans. (B)
- Elliott, Hiram, Constr. Co., Suite 705-6, Commerce Trust Bldg., 922 Walnut St., Kansas City 6, Mo. (B)
- Flett Constr. Co., 4325 Troost Ave., Kansas City 4, Mo. (B)
- Fogel Constrs., Inc., 1212 E. 8th, Kansas City 6, Mo. (B)
- Fox, H. H., Constr. Co., 540 Railway Exchange Bldg., Kansas City 6, Mo. (B)
- Haren & Laughlin Constr. Co., 953 Minnesota Ave., Kansas City 14, Kans. (B)
- Hoffman, Morris, Constr. Co., 309-11 Victor Bldg., Kansas City 6, Mo. (B)
- Hucke, Clarence P., Co., Dwight Bldg., Kansas City 6, Mo. (B)
- Inter State Constr. Co., 3621 Troost Ave., Kansas City 3, Mo. (B-Hvy)
- Kelly, C. A. & R. J., 603 Porter Bldg., Broadway at 34th St., Kansas City 2, Mo. (B)
- Knoop, J. K., Constr. Co., 504 Dwight Bldg., 1004 Baltimore Ave., Kansas City 6, Mo. (B)
- Koch-Schroeder Constr. Co., 19th & Frederick Ave., St. Joseph, Mo. (B)
- Largen, L. J., Constr. Co., 3011 Independence Blvd., Kansas City, Mo. (B)
- Long Construction Company, 810 Rialto Bldg., Kansas City 6, Mo. (B-Hvy)
- Messina Bros. Constr. Co., Inc., 605 Locust St., Kansas City, Mo. (B)
- Miller-Stauch Constr. Co., 322 Railway Exchange Bldg., Kansas City 6, Mo. (B)
- Patti, S., Constr. Co., Inc., 1340 Admiral Blvd., Kansas City 6, Mo. (B)
- Quinlan Constr. Co., 407 Liberty, Kansas City, Mo. (B)
- Rau Constr. Co., 2409 Harrison, Kansas City 8, Mo. (B)
- Rawlings, Wm. S., Co., 1004 Forest Ave., Kansas City 6, Mo. (B)
- Scheperle, Roy A., Constr. Co., 527 Madison St., Jefferson City, Mo. (B)
- Schweiger Constr. Co., 1525 Michigan Ave., Kansas City 1, Mo. (B)
- Sharp Bros. Constr. Co., The, 1014 E. 19th St., Kansas City, Mo. (B)
- Sievers Constr. Co., 215 E. Main St., Sedalia, Mo. (B)
- Swenson Constr. Co., 3305 Terrace St., Kansas City 2, Mo. (B)
- Universal Constr. Co., 522 Scarritt Bldg., Kansas City 6, Mo. (B)
- Weeks Constr. Co., Inc., 1814 Harrison, Kansas City 8, Mo. (B)
- Winn-Senter Constr. Co., 430 Railway Exchange Bldg., Kansas City 6, Mo. (B)
- (b) ASSOCIATED GENERAL CONTRACTORS OF MISSOURI**
- President—Frank E. Rolfe, Harrison Engr. & Constr. Corp., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo.**
- Manager—E. C. L. Wagner, Hotel Governor Bldg., Jefferson City, Mo.**
- Telephone: 6-9613**
- Abramson, John P., Constr. Co., 720 Savings & Loan Bldg., Des Moines 9, Iowa (H-Hvy)
- Aldridge, R. G., 1604 Nebraska Ave., Kansas City 2, Kans. (H-Hvy)
- Arnold, Lewis W., Rt. 2, Mexico, Mo. (H)
- Atkinson, C. H., Paving Co., Chillicothe, Mo. (H-Hvy)
- Fennett, Geo., Constr. Co., 1520 Central Ave., Kansas City 2, Kans. (H-Hvy)
- Bennett, W. H., & Reece Constr. Co., 1310 State Ave., Kansas City, Kans. (H-Hvy)
- Billhorn, Bower & Peters, Inc., 7 N. Brentwood Blvd., Clayton 5, Mo. (Hvy)
- Brosnahan, Emmet, Constr. Co., Harrisonville, Mo. (H)
- Brunn Constr. Co., 1605 E. 76th St., Kansas City 5, Mo. (Hvy-RR)
- Burk Constr. Co., 2106 N. Delaware, Springfield, Mo. (H)
- Bushman Constr. Co., Box 107, St. Joseph, Mo. (H)
- Cameron, Joyce & Co., 19 S. 7th St., Keokuk, Iowa (H-Hvy)
- Carte Bros. Constr. Co., Inc., West Plains, Mo. (H)
- Clark Constr. Co., 1207 S. 4th St., St. Joseph, Mo. (H)
- Clarkson Constr. Co., The, 4133 Gardner Ave., Box 4924, Sta. F, Kansas City 1, Mo. (H-Hvy)
- Concrete Materials & Constr. Co., Box 790, 405 Granby Bldg., Cedar Rapids, Iowa (H)
- Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
- Conduit Contr. Co., Inc., 2317 Tennessee Ave., St. Louis 4, Mo. (Hvy)
- Davidson, M. J., 5828 Lindenwood, St. Louis 9, Mo. (H)
- Davis Constr. Co., Inc., 6th & Spring Sts., Boonville, Mo. (H-Hvy)
- Feeney Constr. Co., 7th & Olive Sts., St. Joseph, Mo. (H)
- Foreman, C. S., Co., 1900 Armour Rd., North Kansas City, Mo. (H-Hvy)
- Cast & Ray Contr. Co., 106 S. Main, Louisiana, Mo. (H)
- GESCO, Inc., P. O. Box 364, Louisiana, Mo. (H)
- Granite Bituminous Paving Co., 3943 Duncan Ave., St. Louis 10, Mo. (H)
- Grantwood Contr. Co., Inc., 7952 S. Rock Hill Rd., St. Louis 23, Mo. (H-Hvy)
- Hamilton, Gordon, Contr. Co., Inc., 505 Waldheim Bldg., 6 E. 11th St., Kansas City 6, Mo. (Hvy)
- Harlin, E. L., West Plains, Mo. (H)
- Harrison Engr. & Constr. Corp., 4638 J. C. Nichols Pkwy., Kansas City 2, Mo. (H-Hvy)
- Hayes, L. W., Inc., 4550 Main St., Kansas City 2, Mo. (H)
- Houge, R. S., 1145 S. Florence Ave., Springfield, Mo. (H-Hvy)
- Hough-Cowgur & Co., 320 N. 4th St., St. Louis, Mo. (Hvy)
- Howard Constr. Co., 1419 N. Osage St., Sedalia, Mo. (H)
- Kansas City Bridge Co., 928 Broadway, Kansas City 6, Mo. (Hvy)
- Kirkwood Constr. Co., 817 E. Monroe, Kirkwood, Mo. (H)
- Kissick & Son Constr. Co., Hickman Mills, Mo. (H)
- Knutson-Gould Constr. Co., 405 Congress Bldg., 3527 Broadway, Kansas City 2, Mo. (H)
- Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy)
- Kraus, Samuel, Co., 649 Edmund Ave., St. Louis 10, Mo. (H-Hvy)
- Krehbiel-Stalker Constr. Co., 411 S. Garth, Columbia, Mo. (H-Hvy)
- Land Constr. Co., 1207 S. 4th St., St. Joseph 26, Mo. (H-Hvy)
- Latta, J. E., Constr. Co., Inc., 6609 Latta Pl., St. Louis 20, Mo. (B-Hvy)
- List, C. J., Constr. Co., 415 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy)
- List & Clark Construction Company, 729 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy-RR)
- List & Weatherly Constr. Co., 296 Plaza Theatre Bldg., 231 W. 47th St., Kansas City 2, Mo. (H-Hvy)
- Luth, Fred M., & Sons, Inc., 4516 McRee Ave., St. Louis 10, Mo. (Hvy)
- Lynn, W. A., Constr. Co., 1022 Trust Bldg., Lincoln, Nebr. (Hvy)
- Maloney, J. T., & Son, 148 S. Elm, Webster Groves 19, Mo. (H-Hvy)
- Markham & Brown, 1961 N. Industrial Blvd., Dallas, Texas (H)
- Mary Constr. Co., Cape Girardeau, Mo. (Hvy)
- Massman Constr. Co., 608 Midland Bldg., 1221 Baltimore, Kansas City, Mo. (Hvy)
- Masters-Jackson Paving Co., 630 Woodruff Bldg., Springfield, Mo. (H)
- Maxwell Bridge Co., The, P. O. Box 348, Columbus, Kans. (H)
- McCarthy-Pohl Constrs., Inc., 4903 Delmar Blvd., St. Louis 8, Mo. (H-Hvy)
- McGeorge, W. P., Jr., Box 248, Pine Bluff, Ark. (H-Hvy)
- Menefee, W. J., Constr. Co., 400 W. 2d St., Sedalia, Mo. (H)
- Metcalfe Constr. Co., Inc., 505 Waldheim Bldg., 6 E. 11th St., Kansas City 6, Mo. (Hvy)
- Midwest Precote Co., 7600 E. 17th St., Kansas City 3, Mo. (H)
- Missouri Petroleum Prods. Co., 1620 Woodson Rd., Overland 14, Mo. (H)
- O'Dell & Riney Constr. Co., Box 3775, Kirkwood 22, Mo. (H-Hvy)
- P. & S. Constr. Co., Macon, Mo. (H)
- Payne & Dolan, Inc., 38 S. Dearborn, Chicago 3, Ill. (H)
- Penzel Constr. Co., Jackson, Mo. (B-H)
- Perkinson, Henry L., Constr. Co., 132 E. Douglas St., St. Louis 7, Mo. (H)
- Pohl, Jos. L., Box 13, Nevada, Mo. (H-Hvy)
- Porter-DeWitt Constr. Co., P. O. Box 279, Poplar Bluff, Mo. (H-Hvy)
- Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (H)

MISSOURI—Continued

Quinn Constr. Co., 4737 Troost Ave., Kansas City 4, Mo. (H-Hvy)
 Reno Constr. Co., Box 61, Overland Park, Kans. (H)
 Riney, L. W., Constr. Co., 323 S. Maple, Hannibal, Mo. (H)
 Rock Hill Asphalt & Constr. Co., 8820 Ladue Rd., P. O. Box 229, Clayton 5, Mo. (H)
 Runquist Co., Savannah, Mo. (H)
 St. Joseph Fuel Oil & Mfg. Co., 1207 S. 4th St., St. Joseph, Mo. (H)
 Storms & Frew Constr. Co., 6601 E. 37th St., Kansas City 3, Mo. (H-Hvy)
 Tarlton, G. L., Constr. Co., 5505 Dale Ave., St. Louis 10, Mo. (B-H-Hvy)
 Tobin, J. A., Constr. Co., 3700 Rainbow Blvd., Kansas City 3, Kans. (H-Hvy)
 Trager, Frank, 401 S. Washington St., Chillicothe, Mo. (H)
 Trinidad Asphalt Mfg. Co., 4030 Chouteau Ave., St. Louis, Mo. (H)
 Utley, A. T., P. O. Box 391, Cape Girardeau, Mo. (Hvy)
 Vance Bros., 4923 Lawn Ave., Kansas City 4, Mo. (H)
 Winston Bros. Company, 1470 Northwestern Bank Bldg., Minneapolis 2, Minn. (H-Hvy)

(c) ASSOCIATED GENERAL CONTRACTORS OF ST. LOUIS

President—H. N. Jones, Jones-Kissner Constr. Co., 706 Chestnut St., St. Louis 1, Mo.
Manager—Henry S. Till, Jr., 1049 Sheraton Hotel, St. Louis 8, Mo.
Telephone: Jefferson 7937

(Building Division)

Abrahams, Sol. & Son Constr. Co., 1207 Delmar Ave., St. Louis 3, Mo. (B)
 Alberici, J. S., Constr. Co., 1550 Irving Ave., St. Louis 20, Mo. (B)
 Alport-Carlo Constr. Co., Title Guaranty Bldg., St. Louis 1, Mo. (B)
 Bank Bldg. & Equip. Corp. of America, 906 Sidney St., St. Louis 4, Mo. (B)
 Bechtel Corp., P. O. Box 480, Wellston, Mo. (B)
 Brockmeyer Constr. Co., 634 N. Grand Blvd., St. Louis 3, Mo. (B)
 Brunson, E. A., Constr. Co., 4052 Forest Park Blvd., St. Louis 8, Mo. (B)
 Bumiller & Meyersieck, 2604 Cherokee St., St. Louis 18, Mo. (B)
 Cousins, Geo. L., Constr. Co., 875 N. Skinker Blvd., St. Louis 5, Mo. (B-Hvy)
 Cunliff, Wm. H. & Nelson, Co., 3320 Lindell Blvd., St. Louis 3, Mo. (B)
 Dailey, H. A., Inc., 876 Hodiament Ave., St. Louis 12, Mo. (B)
 David, E. F., House Moving Co., 1548 S. Vandeventer Ave., St. Louis 10, Mo. (B)
 Deal, H. B., & Co., Inc., 5517 Manchester Ave., St. Louis 10, Mo. (B)
 Dickie Constr. Co., 317 N. 11th St., St. Louis 1, Mo. (B)
 Dilschneider, Ray M., Inc., 8600 Manchester Rd., St. Louis 17, Mo. (B)
 Elam Constr. Co., 5203 Hampton Ave., St. Louis 9, Mo. (B)

Frazier-Davis Constr. Co., 1319 Macklind Ave., St. Louis 10, Mo. (B-H-Hvy-RR)
 Fruin-Colnon Contr. Co., 1706 Olive St., St. Louis 3, Mo. (B-H-Hvy-RR)
 Gamble Constr. Co., 804 Pine St., St. Louis 1, Mo. (B)
 Gutmann, John B., Constr. Co., Inc., 1301 S. Vandeventer Ave., St. Louis 10, Mo. (B)
 Haeseler, A. H., Bldg. & Contr. Co., 2346 Palm St., St. Louis 7, Mo. (B)
 Harting, W. C., Constr. Co., 722 Chestnut St., St. Louis 1, Mo. (B)
 Hertfelder, Wm., Inc., 4108 Clayton Ave., St. Louis 10, Mo. (B)
 Hill, John, Constr. Co., 915 Olive St., St. Louis 1, Mo. (B)
 Ideson Co., Inc., The, 432 S. Sappington Rd., Kirkwood 22, Mo. (B)
 Jones-Kissner Constr. Co., 706 Chestnut St., St. Louis 1, Mo. (B)
 Kiewit, Peter, Sons' Co., Veterans Hospital, Jefferson Barracks 23, Mo. (B-Hvy)
 Kloster Co., 4607 Beck Ave., St. Louis 16, Mo. (B)
 Lecoutour Constr. Co., 1419 Hampton Ave., St. Louis 10, Mo. (B)
 MacDonald Constr. Co., 1310 S. Grand Ave., St. Louis 4, Mo. (B)
 McCormack, R. C., 3936 Lindell Blvd., St. Louis 8, Mo. (B)
 Mikkelsen, E. C., Constr. Co., Inc., 201 Grand Ave., Kirkwood 22, Mo. (B)
 Millstone, I. E., Constr. Co., 4343 Clayton Ave., St. Louis 10, Mo. (B-Hvy)
 Moeller, Geo., Constr. Co., 3007 Wyoming St., St. Louis 18, Mo. (B)
 Murch-Jarvis Constr. Co., 718 Locust St., St. Louis 1, Mo. (B)
 Musick, Don C., Constr. Co., 4900 Washington Blvd., St. Louis 8, Mo. (B)
 Park, Alden B., 17 N. Hanley Rd., Clayton 5, Mo. (B)
 Paulus, Robt., Constr. Co., 3441 Morganford Rd., St. Louis 16, Mo. (B)
 Smith-Cooke Constr. Co., 4829 Easton Ave., St. Louis 13, Mo. (B)
 Stocker, L. O., Co., 3928 Lindell Blvd., St. Louis 8, Mo. (B)
 Tarlton, G. L., Constr. Co., 5505 Dale Ave., St. Louis 10, Mo. (B-Hvy)
 Wells & Wells, Inc., 420 Security Bldg., St. Louis 4, Mo. (B-Hvy)
 Westlake Constr. Co., 1919 Railway Exchange Bldg., St. Louis 1, Mo. (B)
 Williams, J. E., Constr. Co., 6490 Page Ave., St. Louis 14, Mo. (B)
 Willingham Constr. Co., 5701 Vernon Ave., St. Louis 12, Mo. (B)
 Woermann Constr. Co., 3800 W. Pine Blvd., St. Louis 8, Mo. (B)
 Wright, Robt. R., 7910 Bonhomme Ave., Clayton 5, Mo. (B)

(Highway and Heavy Division)

Aalco Heavy Hauling & Erecting Co., 3512 Page Blvd., St. Louis 6, Mo. (Hvy)
 Ben Hur Constr. Co., 5100 Farlin Ave., St. Louis 15, Mo. (Hvy)
 Blue, W. A., Constr. Co., 2224 Hanley Industrial Ct., St. Louis 17, Mo. (Hvy)

Bridges Paving Co., 1411 Central Industrial Dr., St. Louis 10, Mo. (H)
 Conduit Contr. Co., Inc., 2317 Tennessee Ave., St. Louis 4, Mo. (Hvy)
 Fruco Constr. Co., 1706 Olive St., St. Louis 3, Mo. (Hvy)
 Granite Bituminous Paving Co., 3943 Duncan Ave., St. Louis 10, Mo. (H)
 Grantwood Contr. Co., 7952 S. Rock Hill Rd., St. Louis 23, Mo. (H-Hvy)
 Hamm, Daniel, Drayage Co., 2d & Tyler Sts., St. Louis 6, Mo. (Hvy)
 Hartman, John E., 740 N. Kirkwood Rd., Kirkwood 22, Mo. (H-Hvy)
 Kraus, Samuel, Co., 649 Edmund Ave., St. Louis 10, Mo. (H-Hvy)
 Kroeger, Harry W., Erection Co., 4829 Parker St., St. Louis 16, Mo. (Hvy)
 Krummel, Paul, 7201 Weil Ave., Shrewsbury 19, Mo. (Hvy)
 Latta, J. E., Constr. Co., 6609 Latta Pl., St. Louis 20, Mo. (H-Hvy-RR)
 Luth, Fred M., & Sons, Inc., 4516 McRee Ave., St. Louis 10, Mo. (Hvy)
 Maguire Constr. Co., 7435 Augusta Dr., St. Louis 21, Mo. (H-Hvy)
 Micotto, R. C., Constr. Co., 6918 Lansdowne Ave., St. Louis 9, Mo. (H-Hvy)
 Morgan, Arthur, Trucking Co., 2923 N. Broadway, St. Louis 7, Mo. (Hvy)
 Mueller Erection Co., Inc., 2759 Park Ave., St. Louis 4, Mo. (Hvy)
 Perkinson, Henry L., Constr. Co., 132 E. Douglas St., St. Louis 7, Mo. (H-Hvy)
 Riley, Wm. A., Paving & Constr. Co., Inc., 4903 Delmar Blvd., St. Louis 8, Mo. (H-Hvy)
 St. Louis Steel Erection Co., 5112 Wise Ave., St. Louis 10, Mo. (B-H-Hvy)
 Skrainka Constr. Co., 7173 Delmar Blvd., University City 5, Mo. (H-Hvy)
 Southampton Hauling Co., 4999 Fyler Ave., St. Louis 9, Mo. (Hvy)
 Vollmar Bros. Constr. Co., Foot of Victor St., St. Louis 4, Mo. (B-Hvy)
 Wilson, C. T., Contr. Co., 10401 Trongate, St. Louis 15, Mo. (H-Hvy-RR)

Local Members

Glaze Construction Company, 602 N. 2d St., St. Joseph, Mo. (B)
 Lehr Constr. Co., 2115 Frederick Ave., St. Joseph, Mo. (B)

25. MONTANA

(a) MONTANA CONTRACTORS' ASSOCIATION, INC.

President—Edward M. O'Neil, The O'Neil Constr. Co., P. O. Box 1151, Havre, Mont.
Secretary-Manager—J. W. Marlow, Mezzanine, Placer Hotel, Helena, Mont.
Telephone: 3061

A & W Constr. Co., Box 228, Glasgow, Mont. (H)
 Arkwright, Stanley H., Inc., 1200 6th Ave., No., P. O. Box 1211, Billings, Mont. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

MONTANA—Continued

Bail, C. R., Harrison, Mont. (H)
 Billings Constr. Co., 215 N. 16th St., P. O. Box 267, Billings, Mont. (H-Hvy-RR)
 Birch, S., & Sons Constr. Co., 314 Ford Bldg., Great Falls, Mont. (H-Hvy)
 Blacktop Constr. Co., Inc., Box 1353, Billings, Mont. (H)
 Blakeslee, E. H., Constr. Co., 431 Ford Bldg., Great Falls, Mont. (Hvy)
 Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle, Wash. (B-H)
 Cahill-Mooney Constr. Co., Box 398, Butte, Mont. (B-H-Hvy)
 Clifton & Applegate, Box 1473, Spokane 10, Wash. (H-Hvy-RR)
 Dillsworth & Punnea, 403½ Madison St., Helena, Mont. (H-Hvy)
 F & S Contr. Co., P. O. Box 4, Butte, Mont. (H)
 Geery, Glenn, Inc., 601 Wilma Bldg., Missoula, Mont. (H-Hvy-RR)
 Groves, S. J., & Sons Co., 500 Wesley Temple Bldg., Minneapolis 4, Minn. (H-Hvy)
 Halvorson, Carl M., 218 Builders Exchange Bldg., Portland, Oreg. (H-Hvy)
 Hansen & Parr Constr. Co., 1103 N. Calispel, Spokane, Wash. (Hvy)
 Heald & Christler, Inc., Box 1028, Cody, Wyo. (H)
 Herrick, R. P., Co., 2712 Phillips St., Butte, Mont. (H)
 Hilde Constr. Co., Inc., 3810 7th Ave., No., Great Falls, Mont. (H-Hvy-RR)
 Holzworth Constr. Co., P. O. Box 158, 1st National Bank Bldg., Miles City, Mont. (B-H-Hvy)
 Inland Constr. Co., 3867 Leavenworth St., Omaha 5, Nebr. (H-Hvy-RR)
 Kiely Constr. Co., Drawer 246, Butte, Mont. (H)
 Kiewit, Peter, Sons' Co., P. O. Box 875, Sheridan, Wyo. (Hvy)
 Kuney, Max J., Co., N. 120 Ralph St., Box 4008, Station B, Spokane 15, Wash. (H-Hvy-RR)
 Lalonde, Albert, Co., Sidney, Mont. (B-H)
 Lease & Leigland, 1501 N. 35th St., Seattle 3, Wash. (B-H-Hvy)
 Lewis Constr. Co., 923 10th Ave., No., Great Falls, Mont. (B)
 Lockwood, L. V., Box 227, Glasgow, Mont. (Hvy)
 Long Constr. Co., Box 1291, Billings, Mont. (H-Hvy-RR)
 Lyon Constr. Co., Clinton, Mont. (H-RR)
 Marshall, G. E., Box 558, Glendive, Mont. (H)
 McKinnon-Decker Co., 1520 Hauser Blvd., Helena, Mont. (B)
 McLaughlin Constr. Co., 12th & Front, Livingston, Mont. (H)
 McLaughlin, Inc., 331 Ford Bldg., Great Falls, Mont. (H)
 Midland Constr. Co., P. O. Box 1485, Missoula, Mont. (H-Hvy)
 Montana Engr. & Constr. Co., Box 823, Helena, Mont. (H-Hvy-RR)
 Naranche & Konda, 2000 Aberdeen St., Butte, Mont. (H)
 Nilson-Smith Constr. Co., P. O. Box 1147, Great Falls, Mont. (H-Hvy)
 Nolan, A. T., Co., 20 N. 2d St., Minneapolis 1, Minn. (H-Hvy-RR)
 Northwestern Engr. Co., 1311 St. Joe St., Box 1392, Rapid City, S. Dak. (B-H)
 O'Brien Constr. Co., 1127 Smelter Ave., P. O. Box 1801, Great Falls, Mont. (H-Hvy-RR)
 O'Connor Constr. Co., Fromberg, Mont. (B-H)
 O'Connor Constr. Co., Inc., Box 431, Kalispell, Mont. (H-Hvy)
 O'Neil Constr. Co., The, P. O. Box 1151, Havre, Mont. (H-Hvy)
 Powell, E. C., 2626 4th Ave., No., Great Falls, Mont. (H)
 Richardson, Lou, Box 513, Miles City, Mont. (H)
 Riedesel Constr. Co., 2325 9th Ave., No., Box 477, Billings, Mont. (B-H-Hvy-RR)
 Schye & Sullivan, White Sulphur Springs, Mont. (B-H-Hvy)
 Shannon, Chas., Co., 502 S. Washington St., Butte, Mont. (H-Hvy)
 Snyder, Chas. B., P. O. Box 1952, Great Falls, Mont. (H)
 Standard Constr. Co., Box 749, Bozeman, Mont. (H-Hvy)
 Staunton, Thos., 806 1st National Bank Bldg., P. O. Box 1745, Great Falls, Mont. (H)
 Taggart Constr. Co., Inc., P. O. Box 560, Cody, Wyo. (H-Hvy)
 Thomas Constr. Co., 1615 6th Ave., No., Billings, Mont. (H-Hvy)
 Union Constr. Co., Inc., Fort Missoula, P. O. Box 1506, Missoula, Mont. (H-RR)
 Utility Bldrs., Inc., 431 Ford Bldg., Great Falls, Mont. (Hvy)
 Walling Constr. Co., 408 Huron St., Lewistown, Mont. (Hvy)
 Woodward, L. A., Constr. Co., 1203 Wyoming St., Missoula, Mont. (H-Hvy-RR)

(b) MONTANA BUILDING CHAPTER

President—E. J. Decker, McKinnon-Decker Co., 1520 Hauser Blvd., Helena, Mont.

Secretary-Manager—J. W. Marlow, Mezzanine, Placer Hotel, Helena, Mont.

Telephone: 3061

Anderson, P. B., & Co., Inc., Cut Bank, Mont. (B)
 Askevold Constr. Co., Inc., Hammond Arcade, P. O. Box 1125, Missoula, Mont. (B)
 Barney, L. P., 1100 Waukesha Ave., P. O. Box 1073, Helena, Mont. (B)
 Boespflug, J. C., Constr. Co., P. O. Box 1237, Billings, Mont. (B)
 Cahill-Mooney Constr. Co., 420 N. 25th St., Billings, Mont. (B-Hvy)
 Carlson, Arved, 1033 North Ave., W., Missoula, Mont. (B)
 Carson Constr. Co., Inc., 1236 E. 6th Ave., P. O. Box 1153, Helena, Mont. (B)
 Dudley Constr. Co., P. O. Box 546, Great Falls, Mont. (B-Hvy)
 Fuglelland, Chris, & Son, 519 4th St., Havre, Mont. (B)
 Graham, Wilbur L., Strand Bldg., P. O. Box 182, Kalispell, Mont. (B)
 Haggerty-Messmer Co., 519 W. Aspen, Box 334, Bozeman, Mont. (B-Hvy)
 Hitz Constr. Co., Box 1563, Billings, Mont. (B-H)
 Holm Constr. Co., Box 1107, Glendive, Mont. (B)

Johnson, Al, 326 Allen St., Helena, Mont. (B)
 Johnson, I. M., 239 E. Babcock, Bozeman, Mont. (B)
 McKinnon-Decker Co., 1520 Hauser Blvd., Helena, Mont. (B)
 Mitchell, C. E., & Sons, 308 4th Ave., So., Great Falls, Mont. (B)
 Nicholson Co., Inc., The, 507 Silver Bow Block, 20 W. Granite, Butte, Mont. (B)
 O'Neil Constr. Co., The, Box 1151, Havre, Mont. (B)
 Pappin Constr. Co., 700 2d St., So., P. O. Box 1432, Great Falls, Mont. (B)
 Pew Constr. Co., 301 Walnut St., Missoula, Mont. (B)
 Riedesel Constr. Co., 2325 9th Ave., No., Box 477, Billings, Mont. (B-H-Hvy-RR)
 Siert, John, 324 Missouri St., P. O. Box 493, Chinook, Mont. (B)
 Sletten Constr. Co., 1301 10th Ave., No., P. O. Box 1188, Great Falls, Mont. (B)
 Underseht, Theo, 800 Breckenridge, Helena, Mont. (B)

26. NEBRASKA**(a) NEBRASKA BUILDING CHAPTER**

President—O. C. Beckenhauer, Beckenhauer Bros., 0102 S. 5th St., Norfolk, Nebr.

Secretary—Virgil J. Haggart, 1130 1st National Bank Bldg., Omaha 2, Nebr.

Telephone: Jackson 1196

Assenmacher Constr. Co., 625 N. 17th St., P. O. Box 246, Lincoln, Nebr. (B)
 Beckenhauer Bros., 0102 S. 5th St., Norfolk, Nebr. (B)
 Best, Glenn R., Constr. Co., 617 Bross St., Longmont, Colo. (B)
 Borchman, A., Sons, 4601 Douglas St., Omaha 3, Nebr. (B)
 Brown & Denesia Constr. Co., 520 S. 9th Ave., Broken Bow, Nebr. (B)
 Carlstrom Bros., P. O. Box 267, Fremont, Nebr. (B)
 Christ, Carl W., 624 Jackson, Sidney, Nebr. (B)
 Claussen, John, & Sons, 803 S. Clark St., Grand Island, Nebr. (B)
 Cook, Geo., Constr. Co., 1740 Vine St., Lincoln, Nebr. (B)
 Cooper Constr. Co., 110 S. 46th St., Omaha, Nebr. (B)
 DeBuse Bros., Inc., Box 86, Irvington, Nebr. (B)
 Foster-Smetana Co., 4360 Nicholas St., Omaha 3, Nebr. (B)
 Fricke, H. C., 816 W. 4th St., Box 185, Alliance, Nebr. (B)
 Fullen Constr. Co., 315 W. Railroad St., P. O. Box 69, Scottsbluff, Nebr. (B-H)
 Geer-Maurer Constr. Co., 3400 W. 2d, Grand Island, Nebr. (B)
 Gilmore Constr. Co., 1207 N. 11th St., Omaha, Nebr. (B)
 Jones, W. Boyd, Co., 111 S. 40th St., Omaha, Nebr. (B)
 Kealy Constr. Co., 1300 E. 7th St., Hastings, Nebr. (B)

A.G.C. DIRECTORY

NEBRASKA—Continued

Kiewit, Peter, Sons' Co., 1024 Omaha National Bank Bldg., Omaha 2, Nebr. (B)
 Kingery Constr. Co., 1941 Y St., Box 1723, Lincoln, Nebr. (B)
 Korshoj Constr. Co., Blair, Nebr. (B-H)
 Lof, John, & Sons, 4012 Lake St., Omaha 4, Nebr. (B)
 Lueder Constr. Co., 601 Redick Tower Bldg., Omaha 2, Nebr. (B)
 Miller Excavating Co., Inc., 5328 Center St., Omaha, Nebr. (B-H)
 Olson Constr. Co., 410 S. 7th St., Lincoln 8, Nebr. (B-H)
 Parsons Constr. Co., 512 Grain Exchange Bldg., Omaha 2, Nebr. (B)
 Rorick Constr. Co., 905 S. 20, Omaha 2, Nebr. (B)
 Shelton & Son, 6204 Maple St., Omaha 4, Nebr. (B)
 Sothman Constr. Co., 327 N. Cleburn, Grand Island, Nebr. (B)
 Spiegelberg Lumber & Bldg. Co., 259 W. Fremont St., Laramie, Wyo. (B)
 Stitt, H. W., Constr. Co., 3716 Lake St., Omaha, Nebr. (B)
 Westcott-Bowen Constr. Co., 1734 R St., Lincoln, Nebr. (B-Hvy)
 Wilson Constr. Co., 727 S. 11th St., Box 2046, Lincoln 1, Nebr. (B)
 Woerth, Herman R., 2314 21st St., Columbus, Nebr. (B)

(b) NEBRASKA CHAPTER

President—Wardner Scott, W. A. Lynn Constr. Co., 1022 Trust Bldg., Lincoln, Nebr.
Manager—James Critchfield, 619 Trust Bldg., Lincoln 8, Nebr.
Telephone: 2-6210

Abel Constr. Co., Box 268, 895 N. 16th St., Lincoln 1, Nebr. (H-RR)
 Ace Constr. Co., 2110 S. 55th St., Omaha, Nebr. (B-H-Hvy-RR)
 Ace Sand & Gravel Co., Inc., P. O. Box 84, Columbus, Nebr. (H)
 Behrens Constr. Co., 919 Court St., P. O. Box 373, Beatrice, Nebr. (H)
 Berggren, Harry F., & Sons, Inc., Box 64, Scottsbluff, Nebr. (H-Hvy)
 Biba, W. A., Engr. Co., Geneva, Nebr. (H)
 Christensen Sand & Gravel Co., Stephens National Bank Bldg., Fremont, Nebr. (H)
 Claussen-Olson-Benner, Inc., 119 S. East Ave., Holdrege, Nebr. (H-Hvy)
 Concrete Materials & Constr. Co., 405 Granby Bldg., Cedar Rapids, Iowa (H)
 Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
 De Long, C. L., Nebraska City, Nebr. (Hvy)
 Devoss Bros., Box 851, 2016 W. Division, Grand Island, Nebr. (H-Hvy-RR)
 Dobson Bros. Constr. Co., 512 1st National Bank Bldg., Lincoln, Nebr. (H-Hvy)
 Dobson & Robinson, 824 1st National Bank Bldg., Lincoln 8, Nebr. (H-Hvy)
 Dugdale Constr. Co., 1331 S. 20th St., Omaha, Nebr. (B-H-Hvy)
 Gerhold Co., Columbus, Nebr. (H)

Green, Ralph, & W. L. Groesbeck, 1020 N. 14th St., Lincoln, Nebr. (H)
 Grosshans & Petersen, Inc., Marysville, Kans. (H-RR)
 H. & M. Equip. Co., Inc., 120 S. Hastings Ave., Hastings, Nebr. (H)
 Harlan Constr. Co., Republican City, Nebr. (Hvy)
 Inland Constr. Co., 3867 Leavenworth St., Omaha 5, Nebr. (H-Hvy)
 Johnson, H. W., Dakota Ave., So., P. O. Box 218, South Sioux City, Nebr. (H)
 Keim Constr. Co., Tecumseh, Nebr. (H)
 Kiewit, Peter, Sons' Co., 1024 Omaha National Bank Bldg., Omaha 2, Nebr. (B-H-Hvy)
 Kirk, R. V., Gibbon, Nebr. (H)
 Lee & Johnson, 220 Insurance Exchange Bldg., Sioux City 13, Iowa (H)
 Lyman Richey Sand & Gravel Corp., 750 Omaha National Bank Bldg., Omaha 2, Nebr. (H)
 Lynn, W. A., Constr. Co., 1022 Trust Bldg., Lincoln, Nebr. (Hvy)
 Millis, Ray, 418 Keeline Bldg., Omaha, Nebr. (H)
 Monarch Engr. Co., Falls City, Nebr. (H-Hvy)
 National Constr. Co., 1335 S. 20th St., Omaha 2, Nebr. (H)
 Nichols Constr. Co., Geneva, Nebr. (H)
 Nebraska Constr. Co., Farmer's State Bank Bldg., Lexington, Nebr. (H-Hvy)
 Norfolk Bridge & Constr. Co., 300 N. 7th St., Norfolk, Nebr. (H-Hvy)
 Northwestern Engr. Co., P. O. Box 567, Denver 1, Colo. (H)
 Orshek, Francis R., Co., 515 Stephens National Bank Bldg., Fremont, Nebr. (B-H)
 Overland Sand & Gravel Co., Stromsburg, Nebr. (H)
 Pentzien, Inc., 1504 Dodge St., Omaha 2, Nebr. (Hvy)
 Platte Valley Constr. Co., 900 S. Adams St., P. O. Box 595, Grand Island, Nebr. (H-Hvy-RR)
 Read, A. H., Co., 706 W. 19th St., Cheyenne, Wyo. (H-Hvy)
 Rentler Co., Inc., P. O. Box 656, Grand Island, Nebr. (B-H-Hvy)
 Risk Pipe & Constr. Co., Nebraska City, Nebr. (H-Hvy)
 Roberts Constr. Co., 1018 Trust Bldg., Lincoln, Nebr. (H)
 San-Ore Constr. Co., 200 E. Kansas, McPherson, Kans. (H)
 Sawyer, Paul, Sand & Gravel Co., Holdrege, Nebr. (H)
 Steele Bros., Crete, Nebr. (H)
 Stump, Robt., 2025 F St., Lincoln, Nebr. (H)
 Swanson, Arnold, & Co., P. O. Box 133, Hastings, Nebr. (B-H-Hvy)
 Theisen Bros., Osmond, Nebr. (H)
 Werner, Geo. K., & Son, Clay Center, Nebr. (H)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)
 Yant Constr. Co., 917 N. 45th St., Omaha 3, Nebr. (H-Hvy)

27. NEVADA

(a) NEVADA CHAPTER

President—Walker J. Boudwin, Walker Boudwin Constr. Co., 624 E. 4th St., Reno, Nev.
Secretary-Treasurer—Edward L. Pine, Security National Bank Bldg., P. O. Box 478, Reno, Nev.
Telephone: Reno 23525

Belli, E., Inc., 680 Edelweiss Ave., Reno, Nev. (B)
 Boudwin, Walker, Constr. Co., 624 E. 4th St., Reno, Nev. (B)
 Dieterich, Clarence, Co., 122 Rock St., Reno, Nev. (H-Hvy)
 Dodge Constr., Inc., Fallon, Nev. (H-Hvy)
 Games, Earl E., 1380 Humboldt Ave., Reno, Nev. (H-Hvy)
 Isbell Constr. Co., Inc., S. Virginia Rd., P. O. Box 2351, Reno, Nev. (H-Hvy)
 Lee, Edd, 3601 S. Virginia St., Reno, Nev. (B)
 Long Constr. Co., 35 E. Taylor St., Reno, Nev. (B)
 Manuel, Paul, P. O. Box 358, Reno, Nev. (B)
 Miller, Geo. E., P. O. Box 1728, Reno, Nev. (H-Hvy)
 Nevada Engr. & Constr. Co., 135 B Vesta, Reno, Nev. (B)
 Novelty, O & O, Co., Inc., 801 Novelty Dr., Reno, Nev. (B)
 Ramsey Bros. Bldrs., P. O. Box 2266, Reno, Nev. (B)
 Ready-Mix Concrete Co., P. O. Box 1408, Reno, Nev. (B-H-Hvy)
 Roberts, John H. C., 253 E. Taylor St., Reno, Nev. (B)
 Savage, John L., 1503 N. Carson St., Carson City, Nev. (H-Hvy)
 Schilling, G. E., Engr. & Constr. Co., Inc., 201 Sunnyside Dr., Reno, Nev. (H-Hvy)
 Schwake, M. G., Constr. Co., Gardnerville, Nev. (H-Hvy)
 Silver State Constr. Co., Inc., Fallon, Nev. (H-Hvy)
 Wells Cargo, Inc., P. O. Box 1511, 1800 E. 4th St., Reno, Nev. (H-Hvy)
 Wiechmann & Probasco, Inc., 320 Professional Bldg., Reno, Nev. (B)

(b) SOUTHERN NEVADA BUILDERS CHAPTER

President—J. A. Tiberti, J. A. Tiberti Constr. Co., P. O. Box 29, Las Vegas, Nev.

Secretary-Treasurer—Richard D. Chase, Lembke Constr. Co., Box 1391, Las Vegas, Nev.
Telephone: 6540

Davey, Ben O., P. O. Box 1625, Las Vegas, Nev. (B)
 Desert Development, Inc., 1800 S. 10th St., Las Vegas, Nev. (B)
 General Bldrs., Inc., 108 Wyoming Ave., Las Vegas, Nev. (B)
 Lembke-Clough & King Co., 1927 Fremont St., P. O. Box 1391, Las Vegas, Nev. (B)
 Lembke Constr. Co., 1927 Fremont St., P. O. Box 1391, Las Vegas, Nev. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

NEVADA—Continued

Longley Constr. Co., Inc., 421 Bonanza Rd., Box 2104, Las Vegas, Nev. (B)
 Miller, Haynes, Smith, Inc., Box 1, Henderson, Nev. (B)
 Nevada Co., The, 817 S. Main St., P. O. Box 1908, Las Vegas, Nev. (B)
 Shelton Mill & Constr. Co., Box 2046, Las Vegas, Nev. (B)
 Stocks Mill & Supply Co., 750 Fremont, Las Vegas, Nev. (B)
 Tiberti, J. A., Constr. Co., 1233 Comstock, P. O. Box 29, Las Vegas, Nev. (B)
 Ward and Ward, Talbot & San Francisco St., Las Vegas, Nev. (B)
 Webb, Del E., Constr. Co., P. O. Box 4066, Phoenix, Ariz. (B-Hvy)

28. NEW HAMPSHIRE

(a) ASSOCIATED GENERAL CONTRACTORS OF NEW HAMPSHIRE

President—Frank W. Whitcomb, Frank W. Whitcomb Constr. Corp., North Walpole, N. H.
Executive Secretary—Rowland Oakes, 10 Acquilla Bldg., 3 Pleasant St., Concord, N. H.
Telephone: 1561

Bedders, Wm. E., Brookline, N. H. (H)
 Bisson, W. M., & Son, 28 Riverside Ct., Laconia, N. H. (B)
 Curran, Kenneth E., Inc., Littleton, N. H. (H-Hvy)
 Daniels Transportation Co., 10 Mascoma St., Lebanon, N. H. (H)
 Davison Constr. Co., 1306-A Elm St., Manchester, N. H. (B)
 Davison, David W., 449 Hayward St., Manchester, N. H. (B)
 Foster & Bamford, Inc., 18 N. Main St., Concord, N. H. (B)
 Garon Constr. Co., Inc., 623 Clay St., Manchester, N. H. (B)
 Harvey Constr. Co., Inc., 450 Valley St., Manchester, N. H. (B)
 Hodgdon, Edwin J., Mirror Lake, N. H. (B)
 Landers & Griffin Co., 800 Islington St., Portsmouth, N. H. (H)
 MacMillin Co., The, 17 Main St., Keene, N. H. (B)
 Manchester Sand, Gravel & Cement Co., Inc., 839 Elm St., Manchester, N. H. (H-Hvy)
 Maxam Co., The, 94 Hanover St., Portsmouth, N. H. (B)
 Mooney-Sweet-Bundy Corp., 14 Silver St., Dover, N. H. (H)
 Robie Constr. Co., Inc., Pike Ave., Manchester, N. H. (B)
 Ross, Jas., Assos., Inc., 102½ N. Main St., Concord, N. H. (B)
 Shattuck, L. H., Inc., 449 Hayward St., Manchester, N. H. (B)
 Stebbins, Blanchard, 330 Lincoln St., Manchester, N. H. (B)
 Swanburg Constr. Corp., 61 Amherst St., Manchester, N. H. (B)
 Swett, E. D., Winchester, N. H. (H)
 Trumbull-Nelson Co., Inc., 11 Lebanon St., Hanover, N. H. (B)

Viette, Jas. J., Littleton, N. H. (B)
 Weaver Bros. Constr. Co., 259 S. Main St., Concord, N. H. (H)
 Whitcomb, Arthur, Constr. Co., Inc., 725 Main St., Keene, N. H. (H)
 Whitcomb, Frank W., Constr. Corp., North Walpole, N. H. (H-Hvy)

(Vermont Division)

Adams, W. M., & Sons, Riverside Ave., Burlington, Vt. (B)
 Burrington, M. J., Jr., 505 Main St., Bennington, Vt. (B-H)
 Caledonia Sand & Gravel Co., Box 138, St. Johnsbury, Vt. (H)
 Cass-Warner Corp., 21 Pearl St., Essex Junction, Vt. (B-Hvy)
 Dailey, Wm. E., North Bennington, Vt. (H)
 Earle & Merry, Inc., 42 Burnham Ave., P. O. Box 128, Rutland, Vt. (H-Hvy)
 Fascitelli, S., 90 Main St., Burlington, Vt. (B)
 Miller Constr. Co., Windsor, Vt. (Hvy)
 Morse, W. H., Constr. & Lumber Co., Inc., 722 Main St., Bennington, Vt. (B-H-Hvy)
 O'Bryan, Howard Z., 24 Prospect St., Brattleboro, Vt. (B)
 Reed & Stone, Essex Junction, Vt. (B)
 Tucker, F. A., Inc., 38½ Center St., Rutland, Vt. (Hvy)
 Wagner Constr. Co., 122 N. Winoski Ave., Burlington, Vt. (B)
 Waugh, H. A., Constr. Co., Inc., 105 Hill St., Barre, Vt. (B)
 Wright & Morrissey, Inc., 158 Bank St., Burlington, Vt. (B-Hvy)

29. NEW JERSEY

(a) ASSOCIATED GENERAL CONTRACTORS OF NEW JERSEY

President—Henry J. R. Dorer, Ell-Dorer Constr. Co., 644 Nye Ave., Irvington, N. J.
General Manager—Hugh J. Connelly, 52 W. State St., Trenton 8, N. J.
Telephone: Trenton 5-6109

Accione Contr. Co., 1607-9 McKean St., Philadelphia, Pa. (H-Hvy)
 Agabiti Bros., Inc., 125 Swan St., Trenton, N. J. (H-Hvy)
 Alward, H. W., Inc., 161 Mt. Airy Rd., P. O. Box 926, Bernardsville, N. J. (H-Hvy)
 American Paving Corp., Foot of Bessemer St., Newark, N. J. (H)
 Arnolt Bros., Inc., 177 Mali Dr., N. Plainfield, N. J. (H-Hvy)
 Atlantic County Constr. Co., Virginia & Mediterranean Aves., Atlantic City, N. J. (H-RR)
 Bancheri, Chas., 227 Central Ave., Hammon-ton, N. J. (H-Hvy)
 Barrett, Albert E., 530 New York Ave., Trenton 9, N. J. (H)
 Brann & Stuart Co., 771 Broad St. Sta. Bldg., Philadelphia 2, Pa. (B-H-Hvy-RR)
 Brookfield Constr. Co., Inc., 521 5th Ave., New York 17, N. Y. (Hvy)
 Bucks County Constr. Co., Inc., Monroe St., Pennel, Pa. (Hvy)
 Bugbee, Newton A. K., & Co., Oakland St. & Norman Ave., Trenton 8, N. J. (B-H-Hvy)
 Burns, J. P., Box 91, Dumont, N. J. (H-Hvy)
 C & T Constr. Co., 209 Burrwood Ave., Box 12, Collingswood, N. J. (H-Hvy)
 Campanella, Edw. P., 121 S. White Horse Pike, Hammonton, N. J. (H)
 Canuso, Francis A. & Son, 173 W. Roosevelt Blvd., Philadelphia, Pa. (H-Hvy)
 Cayuga Foundation Corp., The Underwood Bldg., 30 Vesey St., New York 7, N. Y. (H-Hvy-RR)
 Chapman, J. F., & Son, Inc., 1303 N. Broad St., Hillside, N. J. (B)
 Consolidated Constr. Co., Inc., 810 Haddon Ave., Collingswood, N. J. (B-Hvy)
 Construction Aggregates Corp., 1 E. 42d St., New York, N. Y. (H)
 Construction Service Co., Lincoln Blvd., P. O. Box 311, Bound Brook, N. J. (Hvy)
 Cox, P. T., Constr. Co., Inc., 270 Broadway, New York 7, N. Y. (H-Hvy)
 Cunningham, A. J., & Sons, 370 Newkirk Ave., Trenton, N. J. (H-Hvy)
 Delta Constr. Co., National Bank Bldg., Hope-well, N. J. (H)
 Domenick, Frank, & Co., Inc., 124 N. 7th St., Newark, N. J. (Hvy)
 Eames Tree Expert Co., P. O. Box 468, Plain-field, N. J. (Hvy)
 Ell-Dorer Contr. Co., 644 Nye Ave., Irvington, N. J. (B-H-Hvy)
 Erie Contr. & Engr. Corp., Passaic National Bank Bldg., Passaic, N. J. (RR)
 Ferrante, Anthony, & Son, Inc., 33 Mt. Airy Rd., Bernardsville, N. J. (B-H)
 Ferry Constr. Co., 20 Boardwalk Arcade Bldg., Atlantic City, N. J. (Hvy)
 Fox, Delton T., 197 Irving Ave., Bridgeton, N. J. (B-H)
 Franklin Contr. Co., 12 Central Ave., Newark 2, N. J. (H-Hvy)
 Frapaul Constr. Co., Essex St., Box 188, Rochelle Park, N. J. (H-Hvy)
 Fritz, W. G., Co., Inc., 69 Main St., West Orange, N. J. (Hvy)
 Fusco, J. R., Inc., 20 Glenridge Ave., Montclair, N. J. (H)
 Groves, S. J., & Sons Co., Rt. 35 at Port Reading RR., P. O. Box 485, Woodbridge, N. J. (H-Hvy)
 Hansen, Ole, & Sons, Inc., 22 N. Franklin Ave., Pleasantville, N. J. (Hvy)
 Harrison & Burrows, Inc., 507 Summit Ave., Jersey City, N. J. (H)
 Harrison, H. L., & Son, Inc., P. O. Box 240, Westfield, N. J. (H-Hvy)
 Hesse, Chas. J., Inc., Palmer St., Belford, N. J. (H)
 Holmes & English, 1465 Palisade Ave., West Englewood, N. J. (H-Hvy)
 Hubbell, O. W., Oneida St., New Hartford, N. Y. (H)
 Jaggard, R. B., Elmwood Rd., Marlton, N. J. (H-Hvy)
 Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y. (H-Hvy)
 Kaufman Constr. Co., Inc., 4000 Pulaski Ave., Philadelphia 40, Pa. (H)
 Kero, Peter W., Inc., 615 Newark Ave., Lyndhurst, N. J. (H-Hvy)
 Kohn Constr. Co., 207 Commonwealth Bldg., P. O. Box 916, Trenton, N. J. (H-Hvy-RR)

A.G.C. DIRECTORY

NEW JERSEY—Continued

Lugano Bros., Inc., 172 Passaic Ave., Belleville 9, N. J. (H)
 Lupton, A. H., Jr., Cumberland National Bank Bldg., Bridgeton, N. J. (H)
 Mack Constr. Co., Inc., 101 Ocean St., Cape May, N. J. (B-Hvy)
 Malanka, C. F., & Sons, Inc., 1317 Bergenline Ave., Union City, N. J. (B-Hvy)
 Marsellis-Warner Corp., 10 Baldwin St., Montclair, N. J. (H)
 McGraw, Jas., Co., 1010 Commercial Trust Bldg., Philadelphia 2, Pa. (H-Hvy-RR)
 McGreevey, John F., & Co., Inc., 141 N. Main St., Manasquan, N. J. (H)
 Morehouse, E. R., Co., 1400 Pine St., Camden, N. J. (H-Hvy-RR)
 Napp-Grecco Co., The, 241 Riverside Ave., Newark 4, N. J. (H-Hvy-RR)
 Nesto Constr. Co., 100 Riverside Ave., Newark 4, N. J. (H)
 New Jersey Asphalt & Paving Co., Foot of Howell St., Jersey City, N. J. (H-Hvy)
 Nicol, Thos., & Co., R. D. Box 135, Farmingdale, N. J. (H)
 Pangia Constr. Co., White Horse Pike, Atco, N. J. (H)
 Park Concrete Co., 725 Park Ave., Palmyra, N. J. (B-Hvy)
 Perelli Contr. Co., Inc., 1633 Hamilton Ave., Trenton 9, N. J. (H)
 Petrillo, Edw. J., Inc., 64 W. Front St., Red Bank, N. J. (B-Hvy)
 Poirier & McLane Corp., 33 W. 42d St., New York 18, N. Y. (Hvy)
 Reid Contr. Co., Inc., P. O. Box 500, Woodbridge, N. J. (H)
 Road Contr. Co. of Westfield, 714 Central Ave., Westfield, N. J. (H)
 Rogers, Jos. W., Succasunna, N. J. (H-Hvy)
 Salmon Bros., Inc., Netcong, N. J. (H-Hvy)
 Senior and Palmer, Inc., 1999 Park Ave., New York 35, N. Y. (Hvy-RR)
 Sette Engr. Co., 239 State Hwy. 17, Paramus, N. J. (H-Hvy)
 Standard Bitulithic Co., Foot of Brill St. & Passaic River, Newark 5, N. J. (H)
 Stone, Arthur E., Doughty Rd. & Reading R. R., Pleasantville, N. J. (H)
 Straco Constr. Co., 130 N. Broadway, Camden, N. J. (H-Hvy-RR)
 Union Bldg. & Constr. Corp., P. O. Box 58, Passaic, N. J. (H-Hvy)
 Union Paving Co., 1227 N. Broad St., Philadelphia, Pa. (H-Hvy)
 Utility Constr. Co., Div. of Aetna Ind. Corp., 84 Paterson St., New Brunswick, N. J. (H-Hvy)
 Versaggi Bros. Constr. Co., Wildwood, N. J. (H-Hvy)
 Villa Contr. Co., Inc., P. O. Box 149, Westfield, N. J. (H-Hvy)
 Villard Contr., Inc., 25 Main St., Hastings-on-Hudson, N. Y. (B-Hvy-RR)
 Warranty Paving Co., P. O. Box 425, Summit, N. J. (H)
 Waters, John N., 209 Park Pl., Audubon, N. J. (H-Hvy-RR)
 Weldon Contr. Co., 113 Central Ave., Westfield, N. J. (B-H)
 Whitmyer Bros., R.F.D. #3, Hammonton, N. J. (H)

Wikstrom, A. S., P. O. Box 217, Skaneateles, N. Y. (H-Hvy-RR)
 Willis Constr., Branchville, Sussex Co., N. J. (H)
 Winans Contr. Co., Inc., The, 601 W. Elizabeth Ave., Linden, N. J. (H)
 Young Foundation Corp., 328 Teaneck Rd., Teaneck, N. J. (B-Hvy-RR)
 Zimmerman, Louis, Jr., 285 Florence Ave., Hillside 5, N. J. (B)
 Ziobro, Stanley J., Inc., 158 Orchard St., East Rutherford, N. J. (H-Hvy)

Local Members

Becker Constr. Co., 361 Grove St., Newark 3, N. J. (B)
 Blanchard, Wm. L., Co., 45 Poinier St., Newark 5, N. J. (B)
 Briscoe, Frank, Co., Inc., 287 S. 19th St., Newark 3, N. J. (B)
 Brotherton, Fred J., Inc., 185 Atlantic St., Hackensack, N. J. (B)
 Douglas, Damon G., Co., 605 Broad St., Newark 2, N. J. (B)
 Hembling, Charles B., & Son, 107 Monmouth St., P. O. Box 1013, Red Bank, N. J. (B)
 Jantelle, P., Inc., 571 S. 10th St., Newark 3, N. J. (B)
 LaFountain, A. A., Inc., 161 Beech St., Hackensack, N. J. (B)
 Lewis, Anthony, Inc., 14-22 Newark Way, Maplewood, N. J. (B)
 Mahony-Troast Constr. Co., Inc., 790 Bloomfield Ave., Clifton, N. J. (B)
 Malmed Construction Company, 304 Mecker Ave., Newark, N. J. (B)
 Markland, M. B., Contracting Co., Boardwalk Arcade Bldg., Atlantic City, N. J. (B-Hvy-RR)
 Matthews Construction Company, 296 Alexander St., Princeton, N. J. (B)
 Salmond, Scrimshaw Constr. Co., 526 Elm St., Arlington, N. J. (B)
 Waldron, Edward M., Incorporated, 42 Park Pl., Newark 2, N. J. (B)

30. NEW MEXICO

(a) ASSOCIATED CONTRACTORS OF NEW MEXICO

President—B. B. Armstrong, Armstrong & Armstrong, Box 873, Roswell, N. Mex.
 Manager—C. O. Faulk, Rm. 73, Sena Plaza, P. O. Box 1693, Santa Fe, N. Mex.
 Telephone: 3-4812
 Adams, Jack, P. O. Box 610, Los Alamos, N. Mex. (H)
 Allison & Haney, P. O. Box 1507, Albuquerque, N. Mex. (H-Hvy)
 Armstrong & Armstrong, Box 873, Roswell, N. Mex. (H)
 Bookout, W. T., Constr. Co., P. O. Box 298, Las Vegas, N. Mex. (H)
 Brown Contr. Co., P. O. Box 1479, Albuquerque, N. Mex. (H)
 Burn, P. R., P. O. Box 1111, Las Cruces, N. Mex. (H)

C & C Contrs., 1907 N. 4th St., Albuquerque, N. Mex. (H)
 Haake, Floyd, 111 Lovato Lane, Santa Fe, N. Mex. (H)
 Isbell Constr. Co., Inc., Santa Rita, N. Mex. (H)
 Lowdermilk Bros., P. O. Box 501, Los Alamos, N. Mex. (H)
 Martin, G. I., 520 S. Tulane, Albuquerque, N. Mex. (H)
 Miller & Smith, P. O. Box 6007, Station B, Albuquerque, N. Mex. (H)
 Ryan, J. H., P. O. Box 513, Albuquerque, N. Mex. (H-Hvy)
 Sharp & Fellows Contr. Co., 533 Central Bldg., Los Angeles 14, Calif. (H-Hvy)
 Silver, E. M., P. O. Box 1062, Albuquerque, N. Mex. (H)
 Skousen, D. D., 201 Springer Bldg., Albuquerque, N. Mex. (H)
 Skousen-Hise Contr. Co., 201 Springer Bldg., Albuquerque, N. Mex. (H)
 Spencer & Co., P. O. Box 350, Sena Plaza, Santa Fe, N. Mex. (H)
 Thygesen, Henry, & Co., P. O. Box 876, Albuquerque, N. Mex. (H)
 Wheeler & Troitz, 2129 E. Lead Ave., Albuquerque, N. Mex. (H)
 Wylie Bros., P. O. Box 4025, Albuquerque, N. Mex. (H)

(b) NEW MEXICO BUILDING BRANCH

President—W. M. Cooper, 607 E. Palace Ave., Santa Fe, N. Mex.
 Manager—Alva J. Coats, 224 N. Montclair Ave., P. O. Box 426, Albuquerque, N. Mex.
 Telephone: 5-2736

Bradbury, O. G., 1217 N. 1st St., P. O. 1628, Albuquerque, N. Mex. (B)
 Brunetta, Dan, 606 E. Green, Box 68, Gallup, N. Mex. (B)
 Clough & King Constr. Co., 924½ N. 11th, Albuquerque, N. Mex. (B)
 Cooper, W. M., 607 E. Palace Ave., Santa Fe, N. Mex. (B)
 Cottle, L. W., 1308 Ross St., Box 831, Clovis, N. Mex. (B)
 Gilchrist Constr. Co., Carver Bldg., P. O. Box 868, Las Cruces, N. Mex. (B)
 Griggs, Raymond, 808 Hull, P. O. Box 781, Clovis, N. Mex. (B)
 House, K. L., Constr. Co., Inc., 214 E. Marquette, P. O. Box 755, Albuquerque, N. Mex. (B)
 Hughes, H. D., 405 N. Virginia Ave., Roswell, N. Mex. (B)
 Lembke Constr. Co., Inc., P. O. Box 144, Albuquerque, N. Mex. (B)
 Maxey & Leftwich, P. O. Box 4091, Station A, Albuquerque, N. Mex. (B)
 McKee, Robt. E., P. O. Box 1706, Santa Fe, N. Mex. (B)
 Patrick, S. V., Constr. Co., 317 E. Marquette, P. O. Box 751, Albuquerque, N. Mex. (B)
 Tatsch, Frank, 1150 N. Main St., Silver City, N. Mex. (B)
 Testman, John T., 2443 Floral Dr., Albuquerque, N. Mex. (B)
 Utah Constr. Co. & C. H. Leavell & Co., P. O. Box 298, Los Alamos, N. Mex. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

NEW MEXICO—Continued

Valley Bldg. Co., 131 W. Walnut St., Roswell, N. Mex. (B)
 Vasey Constr. Co., 910 N. Alameda St., Carlsbad, N. Mex. (B)
 Waggoman-Styron Co., 311 Wellesley Pl., Albuquerque, N. Mex. (B)
 Whitmore Constr. Co., 3612 E. Silver Ave., Albuquerque, N. Mex. (B)

31. NEW YORK

(a) BUFFALO CHAPTER

President—Park L. Metzger, Metzger Constr. Corp., 429 Carlton St., Buffalo 11, N. Y.
Secretary—Robert R. Logan, 518 Prudential Bldg., Buffalo 2, N. Y.
Telephone: Washington 2340

Bremer, C. C., & Co., 2576 Seneca Ave., Niagara Falls, N. Y. (B)
 Cowper, John W., Co., Inc., The, 405 Sidway Bldg., Buffalo 3, N. Y. (B)
 Darling, Herbert F., 131 California Dr., Williamsville 21, N. Y. (Hvy)
 Hendrich, W. F., Co., Inc., The, 775 Main St., Buffalo 3, N. Y. (B)
 International Chimney Corp., 408 Wickwire Bldg., Buffalo 2, N. Y. (B)
 Johnson, Walter S., Bldg. Co., Inc., Hyde Park Blvd., Niagara Falls, N. Y. (B)
 Laur & Mack Constr. Co., Inc., P. O. Box 563, Niagara Falls, N. Y. (B)
 Metzger Constr. Corp., 429 Carlton St., Buffalo 11, N. Y. (B-Hvy)
 Scufari Constr. Co., Inc., 3925 Hyde Park Blvd., Niagara Falls, N. Y. (B)
 Shirley-Herman Co., Inc., 1807 Elmwood Ave., Buffalo 7, N. Y. (B)
 Stimm, H. F., Inc., 693 Ellicott Square Bldg., Buffalo, N. Y. (B-Hvy-RR)
 Walker, Geo. W., & Sons, Inc., 770 Elmwood Ave., Buffalo 9, N. Y. (B)
 Wright & Kremers, Inc., Pine Ave. & Main St., Niagara Falls, N. Y. (B)

(c) METROPOLITAN BUILDERS ASSOCIATION OF NEW YORK CITY

President—A. E. Budell, Industrial Engr. Co., 50 Church St., New York City 7
Secretary—W. J. Barney, Jr., W. J. Barney Corp., 101 Park Ave., New York City 17
Telephone: Lexington 2-2720

Barney, W. J. Corp., 101 Park Ave., New York City 17 (B)
 Barr, Gleason & Barr, Inc., 145 E. 32d St., New York City 16 (B)
 Brady, John T., & Co., Inc., 606 W. 47th St., New York City 19 (B)
 Cauldwell-Wingate Co., 101 Park Ave., New York 17, N. Y. (B)
 Caye Constr. Co., Inc., 356 Fulton St., Brooklyn 1, N. Y. (B)
 Corning, Edw., Co., 204 E. 39th St., New York City 16 (B)
 Crawford, Wm. Inc., 7 E. 42d St., New York City 17 (B)
 Crow, Wm. L., Constr. Co., 101 Park Ave., New York City 17 (B)

Driscoll, Geo. F., Co., 41 E. 42d St., New York City 17 (B)
 Eisele, John H., Co., Inc., 18 E. 41st St., New York City 17 (B)
 Fuller, George A., Company, Fuller Bldg., 597 Madison Ave., New York City 22 (B)
 Grove Shepherd Wilson & Kruger, Inc., 247 Park Ave., New York City 17 (B)
 Hegeman-Harris Co., Inc., 331 Madison Ave., New York City 17 (B)
 Industrial Engr. Co., 50 Church St., New York City 7 (B)
 Kennedy, John, & Co., 205 E. 42d St., New York City 17 (B)
 Kidde, Walter, Constrs., Inc., 140 Cedar St., New York City 6 (B)
 Lowry, John, Inc., 52 Vanderbilt Ave., New York City 17 (B)
 Nicholson Co., Inc., The, 10 Rockefeller Plaza, New York City 20 (B)
 Psaty & Fuhrman, Inc., 369 Lexington Ave., New York City 17 (B)
 Rheinstein Constr. Co., Inc., 21 E. 40th St., New York City 17 (B)
 Ryan Contr. Corp., 341 E. 79th St., New York City 21 (B-Hvy)
 Stewart, James, & Co., Inc., 230 Park Ave., New York City 17 (B)
 Thompson-Starrett Co., Inc., 444 Madison Ave., New York City 22 (B)
 Turner Construction Co., Graybar Bldg., 420 Lexington Ave., New York City 17 (B)
 Vermilya-Brown Company, Inc., 100 E. 42d St., New York City 17 (B)
 White Constr. Co., Inc., 95 Madison Ave., New York City 16 (B)

(d) NEW YORK STATE CHAPTER, INC.

President—H. G. Dixon, Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y.
Managing Director—William M. Lees, DeWitt Clinton Hotel, Albany 7, N. Y.
Telephone: 3-2486

Addazio Contr. Co., Inc., Oyster Bay, Long Island, N. Y. (H)
 Arborio, John, Inc., W. Cedar St., Poughkeepsie, N. Y. (H)
 Arute Bros., Inc., 560 S. Main St., New Britain, Conn. (H)
 Arzani, Victor C., Contr. Co., 2507 James St., Syracuse, N. Y. (H)
 Asphalt Roadways Co., 1766 Main St., Buffalo, N. Y. (H)
 Baughman, H. L., Inc., Rt. 246, E. Henrietta Rd., Rochester 7, N. Y. (H)
 Bellardino, John, Inc., Canal St., Seneca Falls, N. Y. (H)
 Bero Engr. & Constr. Corp., 305 McKinley Bldg., 259 Delaware Ave., Buffalo 2, N. Y. (H)
 Binghamton Constr. Co., Inc., Marine Midland Bldg., Binghamton, N. Y. (H-Hvy)
 Blades, A. L., & Sons, 42 Broadway, Hornell, N. Y. (H)
 Brunalli Constr. Co., 19 Main St., Southington, Conn. (H)
 Bunce, H. E., Box 270, Waverly, N. Y. (H)
 Cable Guide Rail Constr. Co., 21-23 Gould Ave., Depew, N. Y. (H)
 Cady, Wm. J., & Co., P. O. Box 434, Amsterdam, N. Y. (H)

Christiana, Vernon, Jr., 605 Pleasant St., Utica, N. Y. (H)
 Circle Constr. Corp., Brockway Pl., White Plains, N. Y. (H)
 City Constr. Co., 640 Jay St., Utica 2, N. Y. (H)
 Cold Spring Constr. Co., 3 Jackson St., Akron, N. Y. (H-Hvy)
 Collins Bros., Mechanicville, N. Y. (H)
 Collins, Wm. L., 212 Main St., Hornell, N. Y. (H)
 Coluccio, Thos. F., & Sons, 228 S. Washington St., Rome, N. Y. (H)
 Corbetta Constr. Co., Inc., 220 E. 42d St., New York 17, N. Y. (H)
 Corbisello, N. R., P. O. Box 45, Binghamton, N. Y. (H)
 County Asphalt, Inc., Tarrytown, N. Y. (H)
 Croissant, F. J., Antwerp, N. Y. (H)
 Dale Engr. Co., 404 Court St., Utica, N. Y. (H)
 Dan Bar Contr. Co., Inc., 220 Pulawski St., Syracuse, N. Y. (H)
 Davis Constr. Co., Charlotte Ave., Hicksville, N. Y. (B-H)
 DeLia, Elis G., & Co., Paris Rd., New Hartford, N. Y. (H)
 Depew Paving Co., Inc., 4955 Broadway, Depew, N. Y. (H)
 Dougherty, A. L., Co., 403 Guaranty Bldg., Indianapolis 4, Ind. (H)
 Ditcher Constr. Corp., Queenstown, Md. (H)
 Eagle Constrs. of Utica, Inc., P. O. Box 324, Utica, N. Y. (H)
 Elmhurst Contr. Co., Inc., 53-09 97th Pl., Corona, L. I., N. Y. (H)
 Fitzgerald Bros. Constr. Co., Inc., Proctor Bldg., Troy, N. Y. (H)
 Foley, Robt. E., Constr. Corp., 43 Griswold St., Binghamton, N. Y. (H)
 Gessler Contr. Co., Inc., P. O. Box 12, Eastwood Sta., Syracuse, N. Y. (H)
 Good Roads Engr. & Contr. Co., Inc., Burns Ave., Wantagh, N. Y. (H-Hvy)
 Grandview Constr. Corp., The, 740 S. Fulton Ave., Mt. Vernon, N. Y. (H)
 Green Island Constr. Co., 594 Broadway, Watervliet, N. Y. (H)
 Greene, Wm. H., Westbury, N. Y. (H)
 Groves, S. J., & Sons Co., 19 Rector St., New York, N. Y. (H)
 Gull Contr. Co., Inc., 33-15 Lawrence St., Flushing, L. I., N. Y. (H)
 Harrison & Burrows, Inc., 507 Summit Ave., Jersey City, N. J. (H)
 Harvey, John J., Co., 38 Campion Rd., New Hartford, N. Y. (H)
 Hendrickson Bros., Inc., 63 N. Central Ave., Valley Stream, N. Y. (H)
 Holmes & Murphy, Orchard Park, N. Y. (H)
 Hopkins, Richard, Co., Box 1025, Albany, N. Y. (H-Hvy-RR)
 Horn Constr. Co., Inc., 2174 Hewlett Ave., Merrick, L. I., N. Y. (H)
 Howes & Farrell, Inc., Box 85, Oneida, N. Y. (H)
 Hubbell, O. W., Oneida St., New Hartford, N. Y. (H)
 Hudson River Constr. Co., 75 State St., Albany, N. Y. (H)
 Irwin, John, Contr. Co., Inc., The, P. O. Box 376, Lockport, N. Y. (H)
 Johns Bros. Constr. Co., Inc., 38 Hall St., Binghamton, N. Y. (H)
 Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y. (H)

NEW YORK—Continued

Kelleher Corp., 35 Walnut St., Turners Falls, Mass. (H)
 Kranz, M., Engr. & Constr. Co., 447 Ft. Washington Ave., New York 33, N. Y. (H)
 LaBarge Bros. Co., Inc., Moyers Corners, Baldwinsville, N. Y. (H)
 Lane Constr. Corp., The, 37 Colony St., Meriden, Conn. (H)
 Law Bros. Co. & A. J. Leaf, 200 N. Main St., Herkimer, N. Y. (H)
 Lee, L. S., & Son, Oaks Corners, N. Y. (H)
 Longhi, Louis, & Son, Box 580, Glens Falls, N. Y. (H)
 MacNamee, Daniel F., & Co., Inc., 271 North Ave., New Rochelle, N. Y. (H)
 Madison County Constr. Co., Inc., Madison, N. Y. (H)
 Mayersohn, Louis, 36 State St., Albany, N. Y. (H-Hvy-RR)
 McLain Constr. Corp., 275 Mayville Ave., Buffalo, N. Y. (H)
 Mid-State Bldrs., Inc., 622 South St., Utica, N. Y. (H)
 Mohawk Paving Co., Box 653, Geneva, N. Y. (H)
 Moore, Harold B., Windham, N. Y. (H)
 Mullins, John M., Inc., 2364 Burdett Ave., Troy, N. Y. (H)
 Murray, C. D., Co., Inc., 701 Westcott St., Syracuse, N. Y. (H)
 Ottaviano, A. E., Inc., 80 Brooks St., Croton-on-Hudson, N. Y. (H)
 Parlor City Constr. Co., 30 Odell Ave., Endicott, N. Y. (H)
 Pasquale Constr. Co., 311 Cornell Ave., Endicott, N. Y. (H)
 Peckham Road Corp., 50 Harlem Ave., White Plains, N. Y. (H)
 Potter-DeWitt Corp., Pavilion, N. Y. (H)
 Provo Bros., Inc., Corner Oswego & W. Hia-watha Blvd., Syracuse, N. Y. (H-Hvy)
 Riegel, A. V., Inc., 130 Oakley Ave., White Plains, N. Y. (H)
 Salina Constr. & Supply Co., Inc., 1207 Milton Ave., Syracuse, N. Y. (H)
 Savin Constr. Corp., The, East Hartford, Conn. (H)
 Scullen, S. A., P. O. Box 362, Waterford, N. Y. (H-Hvy-RR)
 Serafini Constr. Co., Inc., R. D. 1, Conklin Rd., Binghamton, N. Y. (H)
 Strong, "Les", Constr. Co., Box 28, Whitney Point, N. Y. (H)
 Suits, Harry J., Watkins Glen, N. Y. (H)
 Talarico Contr. Corp., Herkimer, N. Y. (H)
 Torpey, Michael J., Inc., 50-07 49th St., Woodside, N. Y. (H)
 Triple Cities Constr. Co., Inc., 17 Tompkins St., Binghamton, N. Y. (H)
 Tuckahoe Constr. Co., Inc., 116 Columbus Ave., Tuckahoe, N. Y. (H)
 Tully & Dinapoli, Inc., 127-50 Northern Blvd., P. O. Box 145, Flushing, N. Y. (H)
 Van Kleeck, Wm., New Paltz, N. Y. (H)
 Ward, C. P., Inc., 700 Hollenbeck St., Rochester, N. Y. (H)
 Warren Bros. Roads Co., 33 Cambridge Pky., Cambridge 42, Mass. (H)
 Whitmore, C. B., Co., 36 Market St., Lockport, N. Y. (H)

Wikstrom, A. S., P. O. Box 217, Skaneateles, N. Y. (H)
 Wilkes Contr. Corp., 1372 E. Delavan Ave., Buffalo 15, N. Y. (H)
 Winkelman, D. W., Co. Inc., 205 Harrison St., Syracuse 2, N. Y. (H)
 Zara Contr. Co., Inc., Chestnut St., Hicksville, L. I., N. Y. (H)

Local Members

Adirondack Construction Corporation, 73-95 Mohican St., Glens Falls, N. Y. (B-Hvy)
 Brown, Thomas C. Co., Inc., P. O. Box 982, Schenectady, N. Y. (B-Hvy)
 Senior and Palmer, Inc., 1999 Park Ave., New York 37, N. Y. (Hvy-RR)
 Spencer, White & Prentiss, Inc., 10 E. 40th St., New York, N. Y. (Hvy)
 Stanley, Walter A., Constr. Co., Inc., 23 Railroad Ave., Ossining, N. Y. (B)

**32. NORTH CAROLINA
SOUTH CAROLINA**

(a) CAROLINAS BRANCH

President—C. P. Ballenger, Jr., Ballenger Paving Co., Box 927, Greenville, S. C.

Managing Director—Robert Patten, P. O. Box 1459, 401-9 Builders Bldg., Charlotte 1, N. C.

Telephone: 3-3731-2-3

**Columbia Service Office, Builders Bldg., 1639 Blanding St., P. O. Box 5325, Columbia, S. C.—Mrs. Margaret Ballenger, Secretary
Telephone: 2-4331**

**Greensboro Service Office, Rm. 9, Long Bldg., 115 Church St., Greensboro, N. C.—Miss Carolyn Owens, Secretary
Telephone: 4-4311**

**Raleigh Service Office, Mezzanine Fl., Hotel Sir Walter, Raleigh, N. C.—Miss Elizabeth Hayes, Secretary
Telephone: 4-3479**

Abrams Constr. Co., 414 N. Elm St., Greensboro, N. C. (B)
 Alcott Constr. Co., 218 E. Hampton St., Sumter, S. C. (B)
 Alward, H. W., Inc., 161 Mt. Airy Rd., P. O. Box 926, Bernardsville, N. J. (H-Hvy)
 American Constr. Co., RFD #4, Columbia, S. C. (B-H-Hvy)
 Ames & Webb, Inc., P. O. Box 4001, Broad Creek Village Sta., Norfolk 2, Va. (H)
 Asheville Paving Co., Box 7068, Asheville, N. C. (H)
 Askins, C. B., 208 Blanding St., Lake City, S. C. (B)
 Atlantic Bitulithic Co., 1400 Roseneath Rd., Richmond 21, Va. (H)
 Atlantic Bldg. Co., Inc., 501 E. Morehead St., Box 3345, Charlotte, N. C. (B)
 Atlantic Bldg. Corp., 1735 Pinehurst Rd., P. O. Box 656, Columbia, S. C. (B)
 Avery Lumber Co., Inc., Sumter, S. C. (B)
 Bailey-Brazell Constr. Co., Inc., 204 Stokes Bldg., Box 386, Greenville, S. C. (B-Hvy)

Baker, W. E., Constr., Box 909, Sprunt St., West Durham, N. C. (B)
 Ballenger Paving Co., Box 927, Greenville, S. C. (H)
 Ballou Constr. Co., 1603 McMillan Ave., Lumberton, N. C. (B)
 Barge-Thompson Co., 136 Ellis St., N. E., Atlanta 3, Ga. (B)
 Barger Constr. Co., Inc., Box 30, 222 N. Main St., Mooresville, N. C. (B)
 Barnes, H. D., Inc., 233½ N. Greene St., P. O. Box 2408, Greensboro, N. C. (B-Hvy)
 Barnhill & Long, Inc., Tarboro, N. C. (H-Hvy)
 Barrus Constr. Co., Box 395, 1st Citizens Bank Bldg., Kinston, N. C. (H)
 Bartholomew, B. W., Piedmont Bldg., Charlotte 2, N. C. (B)
 Bennett, C. T., Constr. Co., Box 29, Kings Mountain, N. C. (B)
 Blankenship Bros., 2217 S. Tryon St., P. O. Box 3150, Dilworth Sta., Charlotte, N. C. (H-Hvy)
 Blum, Frank L., & Co., P. O. Box 2253, 860 W. 4½ St., Winston-Salem, N. C. (B)
 Blythe Bros. Co., 2911 Hutchinson Ave., P. O. Box 989, Charlotte 1, N. C. (B-H-Hvy)
 Blythe & Isenhour, Box 614, 131 Brevard Ct., Charlotte, N. C. (B)
 Bowers Constr. Co., 805 W. South St., P. O. Box 1706, Raleigh, N. C. (H)
 Boyd & Goforth, Inc., Pineville Rd., Box 2072, Charlotte, N. C. (B-Hvy)
 Boyle Constr. Co., 30 E. Liberty St., P. O. Box 471, Sumter, S. C. (B-H-Hvy)
 Brabham, V. Lyn, P. O. Box 744, 612 Fairway Dr., Florence, S. C. (B)
 Bradshaw, L. S., & Sons, P. O. Box 1099, 600 N. Long St., Salisbury, N. C. (B-H)
 Brewer, N. E., Co., 8 W. 3d St., Box 2860, Winston-Salem, N. C. (Hvy)
 Bridges, E. C., Box 9, Heath Springs, S. C. (H-Hvy)
 Brinkley, E. P., 936 Cowper Dr., Raleigh, N. C. (H)
 Brinkley, John H., 505 Lexington Ave., Box 468, Thomasville, N. C. (H)
 Brinkley, W. F., & Son Constr. Co., Inc., Box 595, Granite Quarry, N. C. (H)
 Brissey Lumber Co., The, Box 782, 321 Earle St., Anderson, S. C. (B)
 Brown Paving Co., P. O. Box 484, Lexington, N. C. (H-Hvy)
 Bryan, J. N., & Son, 1305 Hillsboro St., Raleigh, N. C. (B)
 Bumgarner's Constr. Co., Rt. 1, Conover, N. C. (B)
 Burge, Floyd S., Constr. Co., 406 Dean St., Box 125, Salem Sta., Winston-Salem, N. C. (B)
 Burton, A. B., Co., Inc., Box 817, Wards Rd., Lynchburg, Va. (H)
 Canady Constr. Co., P. O. Box 932, 165 Maple St., Charleston, S. C. (B)
 Carolina Contr. Co., Inc., 1042 Adeline Rd., P. O. Box 5306, Columbia 3, S. C. (H-Hvy)
 Carpenter, R. E., & Co., P. O. Box 85, Rutherfordton, N. C. (B-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CAROLINAS—Continued

- Carper & Perryclear, Christiansburg, Va. (Hvy)
- Carter, A. G., Jr., Box 421, Whiteville, N. C. (B)
- Carter-Miot Constr. Co., 943 Harden St., P. O. Box 212, Columbia, S. C. (B)
- Cecil, J. K., & Son, Greensboro Rd., Box 169, Lexington, N. C. (H-Hvy)
- Cecil's, Inc., P. O. Box 1895, 290 W. Henry St., Spartanburg, S. C. (B)
- Chandler Bros., Inc., Box 5, Virgilina, Va. (H)
- Cherokee, Inc., P. O. Box 1296, Sumter Hwy., Columbia, S. C. (H-Hvy)
- Clancy Constr. Co., 1916½ Hillsboro St., Box 5696, Raleigh, N. C. (B)
- Clark Constr. Co., Greenville, N. C. (H-Hvy)
- Clark, P. M., RFD #10, Box 221, Charlotte, N. C. (B)
- Claussen-Lawrence Constr. Co., 1394 Gwinnett St., Box 840, Augusta, Ga. (B-H-Hvy)
- Cleckley, J. F., & Co., P. O. Box 209, Orangeburg, S. C. (H)
- Cleckley & McGee, Inc., Box 242, Orangeburg, S. C. (B)
- Cline, F. D., Constr. Co., P. O. Box 349, 6-8 E. Davis St., Raleigh, N. C. (H-Hvy)
- Coates Constr. Co., P. O. Box 443, Florence, S. C. (H-Hvy)
- Coble Constr. & Engr. Co., P. O. Box 2040, 1705 Battleground Ave., Greensboro, N. C. (B)
- Coble, H. L., Constr. Co., Inc., P. O. Box 2040, 1705 Battleground Ave., Greensboro, N. C. (B)
- Coble, Jesse M., Sedgefield, Box 664, Greensboro, N. C. (H-Hvy)
- Coe, J. L., Constr. Co., 508 Builders Bldg., P. O. Box 1881, Charlotte, N. C. (B)
- Coggins Constr. Co., Inc., 1900 Hillsboro St., Box 1508, Raleigh, N. C. (B)
- Cole & Crumpacker, 1914 Perry St., P. O. Box 38, West Durham, N. C. (B)
- Coltrane-Graham Constr. Co., 245 S. Hamilton St., P. O. Box 1767, High Point, N. C. (B)
- Congaree Constr. Co., 3530 Colony Forest Dr., Columbia, S. C. (B)
- Conner, Frank H., Co., 711 S. Tryon St., P. O. Box 1031, Charlotte, N. C. (B)
- Connor, J., Robt., 513 Rocksping Rd., High Point, N. C. (B)
- Consolidated Constr. Co., Box 1047, 506 E. 22d St., Lumberton, N. C. (B-Hvy)
- Cooper, S. E., Co., P. O. Box 1631, Wilmington, N. C. (H)
- Cox, L. P., Co., 115 W. Main St., P. O. Box 188, Sanford, N. C. (B)
- Craig, John W., P. O. Box 6124, Charlotte, N. C. (B)
- Craig-Roberson Constr. Co., 1610 Westminster Dr., Columbia, S. C. (B)
- Crain & Denbo, Inc., P. O. Box 969, 205-8 Snow Bldg., Durham, N. C. (B)
- Creed, Geo. A., & Son, Leesburg Rd., Columbia, S. C. (B)
- Cromer & Sullivan Constr. Co., 508 Fair St., Box 754, Anderson, S. C. (B)
- Crosby Constr. Co., Inc., P. O. Box 282, Union, S. C. (B-H-Hvy)
- Crosland Constr. Co., 1623 Harden St., Columbia 59, S. C. (B)
- Crouch, M. G., Lumber Co., P. O. Box 816, Hickory, N. C. (B)
- Crowder Constr. Co., 1317 E. 4th St., Box 71, Charlotte, N. C. (H-Hvy)
- Cunningham-Waters Constr. Co., Inc., Pennsylvania Ave., Box 325, Greer, S. C. (B)
- Dale, W. E., Constr. Co., P. O. Box 393, Morganton, N. C. (B)
- Daniel Constr. Co., Inc., P. O. Box 2286, 429 N. Main St., Greenville, S. C. (B)
- Darlington Constr. Co., Inc., W. Broad St., Box 52, Darlington, S. C. (B)
- Davis, E. L., Co., P. O. Box 149, Beaufort, N. C. (B)
- Delk, W. B., 118½ N. Main St., High Point, N. C. (B)
- Delta Constr. Co., Inc., P. O. Box 888, 506 Rigsbee Ave., Durham, N. C. (B)
- Dickerson, Inc., P. O. Box 448, Monroe, N. C. (B-H-Hvy)
- Dillard, Wm. B., Constr. Co., Inc., P. O. Box 236, Sylva, N. C. (B)
- Dixon Constr. Co., 1001-2 1st Citizens Bank Bldg., P. O. Box 1048, Fayetteville, N. C. (B)
- Dotterer Engr. Co., 12 Exchange St., P. O. Box 495, Charleston, S. C. (B-Hvy)
- Dunn, W. G., P. O. Box 280, Greenville, N. C. (B)
- Durham Elec. Constr. Co., Inc., 306 Rigsbee Ave., Durham, N. C. (Hvy)
- Eargle, H. L., Constr. Co., P. O. Box 3156, 1410 Sumter St., Columbia, S. C. (B)
- East Carolina Constr. Co., P. O. Box 83, Dunn, N. C. (B-Hvy)
- Eastern Constr. Co., 720 N. Church St., Box 1131, Rocky Mount, N. C. (Hvy)
- Edwards, J. C., Box 197, Radio Center, Orangeburg, S. C. (H-Hvy)
- Eidson Constr. Co., P. O. Box 495, Mocksville, N. C. (H)
- Elliott Bldg. Co., Box 400, Hickory, N. C. (B-Hvy)
- Elmore Constr. Co., Box 133, Catawba, N. C. (B)
- Eure, N. F., Box 209, Highland Pk., Beaufort, N. C. (B-H-Hvy)
- Fine, W. M., P. O. Box 26, 515 W. Main St. at Whitehead Rd., Spartanburg, S. C. (B)
- Fiske-Carter Constr. Co., P. O. Box 1251, 200 Dunbar St., Spartanburg, & P. O. Box 480, Masonic Temple, Greenville, S. C. (B-Hvy)
- Foard, Edison, 301 Price Bldg., Charlotte, N. C. (B)
- Foard, Ernest, 210 Piedmont Bldg., 218 S. Tryon St., Charlotte 2, N. C. (B)
- Foster, W. A., Constr. Co., P. O. Box 1334, 704 S. Church St., Burlington, N. C. (B)
- Fowler-Jones Constr. Co., 510 Reynolds Bldg., Winston-Salem 3, N. C. (B)
- Fulk & Needham, Pilot Mountain, N. C. (B)
- Fuller & Julien, Inc., Box 6066, 3125 Eton Rd., Raleigh, N. C. (H)
- Gallant, C. W., Inc., 206 Latta Arcade, Charlotte, N. C. (H-Hvy)
- Gallimore, L. B., 508 Jackson St., P. O. Box 117, Greensboro, N. C. (B)
- Gardner, Fred C., 123 E. Gordon St., Kinston, N. C. (B)
- General Constr. Co., 1815 Blanding St., P. O. Box 1134, Columbia, S. C. (B)
- General Contr. Co., 509 Peoples Bldg., Charleston, S. C. (B)
- General Engr. Corp., Box 1168, Florence, S. C. (B)
- Gibson, John H., 1112 Arnette Ave., P. O. Box 29, Durham, N. C. (B)
- Gilbert Engr. Co., Inc., Box 828, 638 S. Meeting St., Statesville, N. C. (B-H-Hvy)
- Glenn Constr. Co., 916 Liberty Life Bldg., P. O. Box 598, Charlotte, N. C. (H-Hvy)
- Godley-Hinnant, Inc., 609 S. 17th St., Box 1263, Wilmington, N. C. (B)
- Godwin, O. W., Inc., P. O. Box 590, N. Fayetteville St., Dunn, N. C. (B-Hvy)
- Goode Constr. Corp., 201 Builders Bldg., P. O. Box 666, Charlotte, N. C. (B)
- Graham, W. E., & Sons, Box 268, Cleveland, N. C. (H)
- Grannis & Sloan, Inc., 1110½ Hay St., Drawer 3006, Fayetteville, N. C. (H)
- Green, T. H., P. O. Box 1327, 103½ Jones St., Durham, N. C. (B)
- Gregory, J. M., P. O. Box 332, 701-2 Odd Fellows Bldg., Raleigh, N. C. (H-Hvy)
- Grigg & Arthur Constr. Co., Inc., Box 1296, 422 Piedmont St., Reidsville, N. C. (B)
- Guest, C. M., & Sons, Box 829, Anderson, S. C. & Box J-1, Jefferson Standard Bldg., Greensboro, N. C. (B-Hvy)
- Guion, A. H., & Co., Box 1188, Wilkinson Blvd., Charlotte 1, N. C. (B-Hvy)
- Hand, W. H., & Son, Box 392, Belmont, N. C. (B)
- Hardaway Contr. Co., Box 1360, Columbus, Ga. (B-H-Hvy)
- Hardison, J. T., & Son, Box 166, Washington, N. C. (B)
- Harlee-Quattlebaum Constr. Co., 1301 W. Palmetto St., Florence, S. C. (B)
- Harper Bldrs. Supply, Inc., Main St., Williamston, S. C. (B)
- Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa. (B-H-Hvy)
- Hawkins, Neal, P. O. Box 548, E. Main & S. Avon Sts., Gastonia, N. C. (H-Hvy)
- Hayes, R. E., 2862 Adams St., Wilmington, N. C. (B)
- Haynes, Chas. C., Jr., Constr. Co., Inc., Hillsboro Rd., P. O. Box 205, West Durham, N. C. (B)
- Haynsworth, T. B., Jr., 210 W. Cedar St., Florence, S. C. (B)
- Herman-Sipe & Co., Inc., P. O. Box 306, Conover, N. C. (B)
- Herrin, C. A., 926 Urban Ave., Durham, N. C. (B)
- Heslep, John C., Box 934, No. 3, South Carolina Bank Bldg., Columbia F. S. C. (B)
- Hester, E. F., Rt. 7, Greensboro, N. C. (H)
- Hickory Constr. Co., Inc., Box 812, Union Sq., Hickory, N. C. (B)
- Hicks, R. C., 324 Piedmont Bldg., Charlotte 2, N. C. (B)
- Higgins, V. B., Co., P. O. Box 1529, Jefferson Standard Bldg., Greensboro, N. C. (Hvy)
- Hill, J. S., Constr. Co., N. Market St., Box 122, Washington, N. C. (H)
- Holt, Heenan, Box 109, Graham, N. C. (B)
- Homewood, Roy M., P. O. Box 150, Chapel Hill, N. C. (H-Hvy)
- Houser, T. F., 33 London Rd., P. O. Box 5178, Biltmore Sta., Asheville, N. C. (H)

A.G.C. DIRECTORY

CAROLINAS—Continued

- Howard Constr. Co., Inc., 739 Winston St., Box 3094, Greensboro, N. C. (Hvy)
- Hulcher, M. L., Co., Inc., Box 168, Virden, Ill. (Hvy)
- Hunt Constr. Co., Inc., 3503 Roxboro Rd., P. O. Box 8008, North Durham, N. C. (B)
- Industrial Bldrs., Inc., P. O. Box 52, Anderson, S. C. (B-Hvy)
- Interstate Constr. Co., 211 Atherton St., P. O. Box 3064, Charlotte, N. C. (B)
- Johnson & Geddes, 401 Rowan St., P. O. Box 3217, Fayetteville, N. C. (B-H-Hvy)
- Jones Bros. & Co., Box 1454, 417 Lodge St., Wilson, N. C. (B)
- Jones, J. A., Constr. Co., Inc., 209 W. 4th St., P. O. Box 966, Charlotte 1, N. C. (B-Hvy)
- Kahn, M. B., Constr. Co., 1113 Blossom St., P. O. Box 595, Columbia G, S. C. (B-Hvy)
- Kane, Geo. W., 111 Corcoran Street Bldg., Durham, N. C. (B)
- Kaylor, John R., Rt. 1, Gastonia, N. C. (B)
- Kenyon, Worth D., Constr. Co., Inc., 815 Capital Club Bldg., Raleigh, N. C. (B)
- Kiker & Yount, Inc., Box 330, 225 W. Morehead St., Reidsville, N. C. (H)
- King-Hunter, Inc., P. O. Drawer V-2, 1421 Westover Trl., Greensboro, N. C. (B)
- Kirkpatrick, R. F. & Sons, Church St., Box 638, Burlington, N. C. (B)
- Kiziah, J. H., Hwy. N-127, Box 2322, Hickory, N. C. (B)
- Knight, Inc., 209½ Morehead St., P. O. Box 839, Reidsville, N. C. (H-Hvy)
- Kraft & Newell, P. O. Box 262, Florence, S. C. (B-H-Hvy)
- Lambeth Constr. Co., Box 1102, 1071 Retreat Co., Greensboro, N. C. (H-Hvy)
- Lavender Bros., Box 2, Earl, N. C. (H)
- Laxton Constr. Co., Inc., 1117 E. 10th St., P. O. Box 9086, Charlotte, N. C. (B)
- Lee Constr. Co., Power Bldg., 311 W. Worthington, Box 1378, Charlotte, N. C. (B-Hvy)
- Lee, Robt., Inc., Box 417, Manning, S. C. (H-Hvy)
- Lewis & Bowman, Inc., 12 Edwards Bldg., P. O. Box 743, Goldsboro, N. C. (Hvy)
- Little Constr. Co., Inc., 703 Builders Bldg., Box 1053, Charlotte, N. C. (B)
- Loving, T. A., & Co., Bank of Wayne Bldg., Box 989, Goldsboro, N. C. (B-H-Hvy)
- Lowder, Ray D., Inc., Albemarle, N. C. (H)
- Lyles & Lang Constr. Co., Leesburg Rd., Columbia, S. C. (B)
- MacDougald Constr. Co., Northside Dr., N.W., P. O. Box 1655, Atlanta 1, Ga. (H-Hvy-RR)
- Macon Constr. Co., Franklin, N. C. (H)
- Mangum, C. C., 3016 Hillsboro St., Box 5936, State College Sta., Raleigh, N. C. (H-Hvy)
- Martin, Ben H., Box 166, Easley, S. C. (H)
- McDevitt & Street Company, Box 1847, 505 Builders Bldg., Charlotte 1, N. C. (B-Hvy)
- McDowell & Wood, 1308 W. Main St., Salem, Va. (H)
- McKoy-Helgeson Co., Box 57, 320 S. Hudson St., Greenville, S. C. (B)
- McMeekin Constr. Co., P. O. Box 352, Cheraw, S. C. (H-Hvy)
- Merchant Constr. Co., 284 Biltmore Ave., Box 2479, Asheville, N. C. (B)
- Michael & Embree, E. Markham Ave., P. O. Box 1690, Durham, N. C. (H)
- Midstate Constr. Inc., 1028 1st Ave., S. W., P. O. Box 2401, Hickory, N. C. (H-Hvy)
- Mitchell, H. F., Constr. Co., P. O. Box 528, Main St., Burlington, N. C. (B)
- Mixon, B. H., Drawer 452, Henderson, N. C. (B)
- Mobley, Clarence, Contr. Co., 630 11th St., Augusta, Ga. (B-Hvy)
- Modern Bldrs., Inc., 158 N. Main St., Rocky Mount, N. C. (B)
- Moore Constr. Co., P. O. Box 5, Myrtle Beach, S. C. (B)
- Moore, G. E., Co., Inc., Box 1069, Greenwood, S. C. (B-H-Hvy)
- Morgan, E. R., Box 1101, 251½ Main St., Gastonia, N. C. (B)
- Morris Constr. Co., P. O. Box 364, Greenville News Bldg., Greenville, S. C. (B)
- Muirhead, Wm., Construction Company, Inc., P. O. Box 2012, E. Trinity Ave., Durham, N. C. (B-H-Hvy)
- Mullis, Carl W., Lumber Co., Box 470, Lancaster, S. C. (B)
- Myers Constr. Co., Inc., P. O. Box 4074, Monroe & Amity Rd., Charlotte, N. C. (H-Hvy)
- Neal, C. P., Constr. Co., P. O. Box 278, Park St., Forest City, N. C. (B)
- North State Constr. Co., Inc., 830 Carr St., P. O. Box 1136, Rocky Mount, N. C. (B)
- Owen Constr. Co., Inc., 1006 Northwood St., Greensboro, N. C. (B)
- Parham-Darr Constr. Co., P. O. Box 1226, High Point, N. C. (B)
- Patterson, Dean, Constr. Co., 1150 S. Main St., Burlington, N. C. (H-Hvy)
- Peden Constr. Co., Inc., 529 Maberry St., Greenville, S. C. (H-Hvy)
- Pennell & Haigler Constr. Co., Wilkesboro Rd., Lenoir, N. C. (B)
- Phifer, Jesse P., Constr. Co., Box 206, E. Rockingham Rd., Rockingham, N. C. (B)
- Phillips Constr. Co., Arch & Catawba Sts., Lancaster, S. C. (B)
- Pickler, M. C., Constr. Co., Inc., Aberdeen, N. C. (B)
- Piedmont Constr. Co., Inc., P. O. Box 1538, 607 Coal St., Winston-Salem 1, N. C. (B-H-Hvy)
- Pinnix, R. H., P. O. Box 97, Commercial Bldg., Gastonia, N. C. (B)
- Player Realty & Constr. Co., P. O. Box 707, Fayetteville, N. C. (B)
- Poe, T. W., & Sons, P. O. Box 245, 406 Snow Bldg., Durham, N. C. (B)
- Pope, S. A., 356 Pickens St., Rock Hill, S. C. (B)
- Potter-Shackelford Constr. Co., Box 1018, 4 Washington Pl., Greenville, S. C. (B)
- Powell, Jas. F., Jr., 1310 Williamson Dr., Raleigh, N. C. (H-Hvy)
- Propst, Ben B., Concord, N. C. (H)
- Propst Constr. Co., Inc., P. O. Box 752, Blume St., Concord, N. C. (H)
- Pullen & Owens, 1108 3d National Bank Bldg., Nashville 3, Tenn. (H-Hvy)
- Pyramid Constr. Co., 3608 Oleander Dr., Box 1655, Wilmington, N. C. (B-H-Hvy)
- Quality Constr. Co., 202 Haywood Rd., Asheville, N. C. (B)
- Ramsey, A. A., & Son, P. O. Box 1249, Shelby, N. C. (B)
- Ramsey, H. F., Co., Inc., Box 5146, Biltmore Sta., Asheville, N. C. (H)
- Randall, W. R., & Son, 1123 E. Main St., P. O. Box 375, Rock Hill, S. C. (B)
- Ratchford, Rubye V., Constr. Co., 922 W. Main St., Rock Hill, S. C. (B)
- Rea Constr. Co., P. O. Box 2015, Charlotte, N. C. (H-Hvy)
- Reagan, Wm. M., & Sons, Inc., R.F.D. 4, Box 215, Columbia, S. C. (H-Hvy)
- Reed & Abree, Inc., Box 5101, Biltmore Sta., Brook St., Asheville, N. C. (Hvy)
- Reincke, E. W., & Co., 460 Rowan St., Fayetteville, N. C. (B)
- Rice, Jas. F., 1619 Green St., Columbia, S. C. (B)
- Robinson Bros. Constrs., Inc., 841 Merrimon Ave., Asheville, N. C. (B)
- Rogers-DeVaun, Inc., P. O. Box 1585, 17th & Meares St., Wilmington, N. C. (B)
- Rogers, J. P., & Rogers Constr. Co., Holman Bldg., 217A Market St., Smithfield, N. C. (B)
- Rose, D. J., & Son, Drawer 351, 125 Rose St., Rocky Mount, N. C. (B)
- Rouse, R. N., & Co., 1019 N. William St., P. O. Box 702, Goldsboro, N. C. (B)
- Ruscon Constr. Co., 149 E. Bay St., P. O. Box 275, Charleston, S. C. (B-Hvy)
- Sanford Constr. Co., Inc., Sycamore St., Box 427, Sanford, N. C. (H-Hvy)
- Scott, W. H., Inc., P. O. Drawer 418, Franklin, Va. (H)
- Seastrunk, F. J., Elec. Co., Inc., P. O. Box 329, 1731 Harden St., Columbia, S. C. (Hvy)
- Seth Lumber Co., Inc., Box 468, Lincoln, N. C. (B)
- Setzer, H. K., "Chip", Paving Co., 1027 Main Ave., P. O. Box 574, Hickory, N. C. (H-Hvy)
- Seymour, John W., 1427 Curfman St., Raleigh, N. C. (B)
- Shackelford, O. L., 104 E. Blount St., P. O. Box 886, Kinston, N. C. (B)
- Shearer, A. C., Co., Box 128, Chapel Hill, N. C. (H)
- Shipp, C. H., Constr. Co., P. O. Box 667, 1104 Watts St., Durham, N. C. (B)
- Shockey, C. G., Constr. Co., 2020 Blanding St., Columbia 59, S. C. (B)
- Showalter, F. L., Inc., Box 623, 1601 Allied Arts Bldg., Lynchburg, Va. (B-Hvy)
- Simon, W. A., Inc., P. O. Box 87, 309 Marsteller St., Wilmington, N. C. (B)
- Skinner & Ruddock, Inc., P. O. Box 750, King St. Extension, Charleston G, S. C. (B-H-Hvy)
- Sloan Constr. Co., Inc., P. O. Box 747, Peoples National Bank Bldg., Greenville, S. C. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

CAROLINAS—Continued

- Smith, C. T., & Son, Box 89, Lenoir, N. C. (B)
- Smith, Geo. T., Jr., 2717 Peachtree St., Raleigh, N. C. (H-Hvy)
- Smith & Jones, Gen. Contrs., 936 W. Peachtree St., N. W., Atlanta, Ga. (B)
- Smyth, Norman A., Co., 404½ S. Tryon St., Box 473, Charlotte 1, N. C. (B)
- Sossamon, F. W., Jr., P. O. Box 213, Gaffney, S. C. (B)
- Southeastern Constr. Co., 301 W. 2d St., Box 1517, Charlotte 1, N. C. (B)
- Southern Bldrs., Inc., Box 1016, Fayetteville, N. C. (B-H)
- Southern Constr. Co. of Charlotte, Inc., 1017 E. 4th St., P. O. Box 1392, Charlotte, N. C. (B)
- Southern Roadbuilders, Inc., 540 Reynolds St., Augusta, Ga. (H)
- Southern States Constr. Co., P. O. Box 596, 1408 Hampton St., Columbia, S. C. (B)
- Spangler, C. D., Constr. Co., 1028 South Blvd., P. O. Box 3007, Charlotte, N. C. (B)
- Sparling Constr. Co., 1326 Carolina St., P. O. Box 1980, Greensboro, N. C. (B)
- Spong Constr. Co., P. O. Box 5436, 608½ Harden St., Columbia, S. C. (B)
- Spotts & Co., R.F.D. #1, Box 124, Newberry, S. C. (H-Hvy)
- Spruce, Geo. T., P. O. Box 3238, Fayetteville, N. C. (Hvy)
- Stacy Bros. Co., 145 W. Main St., Box 247, Johnson City, Tenn. (H)
- Stewart, H. R., & Co., 5 Westchester Dr., Asheville, N. C. (H-Hvy)
- Stewart, Harvey H., P. O. Box 1932, 1204 S. Gaham St., Charlotte, N. C. (H-Hvy)
- Stewart, R. K., & Son, Box 1936, High Point, N. C. (B)
- Stiefel, W. Herbert, P. O. Box 604, Richland Ave. at Williamsburg St., Aiken, S. C. (B)
- Stockton, J. C., & Son, 1316 Wilson St., P. O. Box 2014, Hill Sta., Augusta, Ga. (B)
- Strong & Harmon, 2714 Coolemeed Dr., Raleigh, N. C. (B)
- Stroup, D. Glenn, 111 Oakdale St., Gastonia, N. C. (B)
- Suber & Co., Inc., N. Main St., P. O. Box 338, Whitmire, S. C. (H-Hvy)
- Superior Constr. Co., 1053 Oakmont Ave., Box 2593, Greensboro, N. C. (B)
- Swain Constr. Co., Inc., P. O. Box 90, 108 S. Academy, Kingstree, S. C. (B-H)
- Talbott, A. W., Buffalo Springs Va. (H-Hvy)
- Tate, C. G., Constr. Co., Kannapolis Hwy. U. S. 29, Concord, N. C. (H)
- Taylor Constr. Co., Box 5119, Biltmore Sta., Asheville, N. C. (H)
- Taylor Constr. Co., Inc., Elizabethton, Tenn. (B-H-Hvy)
- Taylor, E. F., Co., Inc., Box 653, Goldsboro, N. C. (B)
- Teer, Nello L., Co., Trust Bldg., P. O. Box 1131, Durham, N. C. (H-Hvy)
- Thomas, J. B., 920 Wilder Bldg., Charlotte, N. C. (B)
- Thomason, C. Y., Co., Box 232, Greenwood, S. C. (B-H-Hvy)
- Thompson, A. R., Contr., Inc., Charlotte Rd., P. O. Box 248, Rutherfordton, N. C. (H)
- Thompson-Arthur Paving Co., 300 Benbow Rd., P. O. Box 1197, Greensboro, N. C. (H-Hvy)
- Thompson, F. N., P. O. Box 1474, Pineville Rd., Charlotte 1, N. C. (B-H-Hvy)
- Thompson, J. M., Co., 304 S. Salisbury St., P. O. Box 2754, Raleigh, N. C. (B)
- Thompson, O. G., & Sons, 1500 N. Church St., P. O. Box 588, Burlington, N. C. (B)
- Tompkins-Curlett-Wunderlich, Bremmer Ave. & Link St., P. O. Box 139, Salisbury, N. C. (B-H-Hvy)
- Towles, E. B., Constr. Co., P. O. Box 1617, Market Street Rd., Wilmington, N. C. (H-Hvy)
- Triangle Constr. Co., P. O. Box 372, Greenville, S. C. (B)
- Triplett, F. A., Inc., Box 297, Chester, S. C. (H)
- Troutman, E. N., 1108 E. Holly St., Goldsboro, N. C. (B)
- Tuck, A. M., 507 Hodges Bldg., P. O. Box 203, Greenwood, S. C. (H)
- Vick, Wm. C., 3114 Hillsboro St., Raleigh, N. C. (B)
- Vinroot, G. E., Rt. 2, Meadowood Lane, P. O. Box 6144, Charlotte, N. C. (B)
- Waddell, J. R., & Sons, Rt. 2, Box 350, Charlotte, N. C. (B)
- Wade, Henry F., Barnesville, N. C. (B-H)
- Wagoner Constr. Co., 1311 Blair St., P. O. Box 1127, Salisbury, N. C. (B)
- Wannamaker & Wells, Inc., Box 542, 900 Chestnut, N. E., Orangeburg, S. C. (B-H-Hvy)
- Wayne Engr. & Constr. Co., Inc., P. O. Box 306, Mt. Olive, N. C. (H)
- Weaver, W. H., Constr. Co., Inc., 214 W. Gaston St., Greensboro, N. C. (B)
- West Bldg. Co., Inc., 1006 Reynolds Bldg., Winston-Salem, N. C. (B)
- West, P. S., Constr. Co., Inc., 430 S. Center St., Drawer 751, Statesville, N. C. (B-Hvy)
- White, A. P., & Assos., Box 264, 328½ S. Church St., Charlotte, N. C. (Hvy)
- Whitton Bros., 301 W. 2d St., P. O. Box 1517, Charlotte 1, N. C. (B)
- Wilburn & Son, 21 Pine Tree Circle, Asheville, N. C. (B)
- Willard, A. Y., Box 155, St. Andrews Br., Avondale Ave., Charleston, S. C. (B-Hvy)
- Wilson Constr. Co., General Delivery, Walterboro, S. C. (B-H-Hvy)
- Wilson Constr. Co., Inc., Box 603, 120 N. Church St., Salisbury, N. C. (H-Hvy)
- Wilson, C. L., Bldg. Co., 149 E. Water St., Box 1147, Statesville, N. C. (B)
- Wilson-Ledford Constr. Co., Inc., P. O. Box 752, Wilkinson Blvd., Gastonia, N. C. (B)
- Winkelman, D. W., Carolina Co., Box 2566, Greensboro, N. C. (H-Hvy)
- Woods, C. C., Constr. Co., 217 W. Geer St., Box 551, Durham, N. C. (B)
- Wrenn-Wilson Constr. Co., P. O. Box 393, 209 Trust Bldg., Durham, N. C. (B-Hvy)
- Wright Constr. Co., 600 Lawyers Bldg., Raleigh, N. C. (B)
- York Bldg. Co., Cameron Village, Raleigh, N. C. (B)
- Young Constr. Co., 966 W. Main St., Rock Hill, S. C. & Box 2483, Charlotte, N. C. (B-H-Hvy)
- Young, J. R., Constr. Co., Inc., P. O. Box 747, 330 Worth St., Fayetteville, N. C. (B-Hvy)
- Younts, E. E., Inc., P. O. Box 1253, High Point, N. C. (B)

33. NORTH DAKOTA

(a) ASSOCIATED GENERAL CONTRACTORS OF NORTH DAKOTA

President—Arthur C. Johnson, Meinecke-Johnson Co., 5 N. 14th St., P. O. Box 1446, Fargo, N. Dak.
Manager—Wesley A. Bastedo, 110 3d St., Bismarck, N. Dak.
Telephone: 3806

- Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis 6, Minn. (H)
- Beebe, John C., 103 Goebel Bldg., Grand Forks, N. Dak. (B)
- Birch, S., & Sons Constr. Co., Fargo, N. Dak. (H)
- Bradbury, P. A., Constr. Co., Wylie Park Rd., Box 636, Aberdeen, S. Dak. (B-H)
- Butler Constr. Co., Grand Forks, N. Dak. (H)
- Campbell, Archie, Warwick, N. Dak. (H)
- Collins, Wm., & Sons, Inc., 514 Black Bldg., Fargo, N. Dak. (H)
- Dieselt, John, Co., Fergus Falls, Minn. (H)
- Everetts & Kelso, Box 717, Jamestown, N. Dak. (H)
- Flaten, Ole, Sons of Norway Bldg., Minot, N. Dak. (B)
- Groves, S. J., & Sons Co., 500 Wesley Temple Bldg., Minneapolis 4, Minn. (H-Hvy)
- Haggart Constr. Co., The, Box 1310, Fargo, N. Dak. (H)
- Haggart, Geo. E., Constr., Co., Fargo, N. Dak. (Hvy)
- Jardine Bridge Co., Inc., 1910 1st Ave., No., Fargo, N. Dak. (H)
- Johnson-Gillanders Co., 424 N. 3d St., Grand Forks, N. Dak. (B)
- Johnson & Lunn, 510 14th St., Bismarck, N. Dak. (B)
- Jordan Constr. Co., Hensel, N. Dak. (B-H-Hvy)
- Kemper, Paul R., Kemper Block, Minot, N. Dak. (H-Hvy)
- Knudsen, Carl M., & Co., 312 8th St., N. W., Minot, N. Dak. (B)
- Krieg, J. E., & Sons, 2014 Front St., Fargo, N. Dak. (B)
- Labonde, Albert, Co., Sidney, Mont. (H)
- Larson, John W., 200½ 3d St., Bismarck, N. Dak. (B)
- Lindberg Constr. Co., Jamestown, N. Dak. (H-Hvy)
- Lytle, C. F., Company & Green Constr. Co., Sioux City, Iowa (H-Hvy)
- Mackley & Ralston, 401 1st Avenue Bldg., Minot, N. Dak. (B)
- Mattson, Isak, & Son, 120 1st Ave., S. E., Minot, N. Dak. (B)
- Meinecke-Johnson Co., 5 N. 14th St., P. O. Box 1446, Fargo, N. Dak. (B)
- Meisner-Anderson Co., 713 Avenue A, Bismarck, N. Dak. (B)

NORTH DAKOTA—Continued

Miller Bros. Constr., 1 Fauchald Bldg., Minot, N. Dak. (B)
 Moline, E. A., 118½ 1st Ave., So., Jamestown, N. Dak. (B)
 Murphy-Smestad Constr. Co., 1337 Broadway, Fargo, N. Dak. (H)
 Nelson, Harvey W., Grafton, N. Dak. (B)
 Noel, W. H., Co., Box 1390, Jamestown, N. Dak. (H)
 Northern Constr. Co., 509 S. 3d St., Grand Forks, N. Dak. (H-Hvy)
 Northern Improvement Co., 633 1st Ave., No., Box 489, Fargo, N. Dak. (H-Hvy)
 Northwestern Engr. Co., Box 1392, Rapid City, S. Dak. (H-Hvy)
 Orheim, I. E., Minot, N. Dak. (B)
 Powers, T. F., Constr. Co., 217 4th Ave., No., Fargo, N. Dak. (B)
 Richardson, Lou, Box 513, Miles City, Mont. (H)
 Roel Constr. Co., 20 N. 14½ St., Fargo, N. Dak. (B)
 Rue Constr. Co., 217 3d St., Bismarck, N. Dak. (H-Hvy)
 Rue Contr. Co., Box 349, Fargo, N. Dak. (B-Hvy)
 Schultz & Lindsay Constr. Co., 621 1st Ave., No., Fargo, N. Dak. (H)
 Shaw, J. A., Constr. Co., Fargo, N. Dak. (Hvy)
 Shirley Constr. Co., Minot, N. Dak. (B)
 Simek, Frank, Bottineau, N. Dak. (B)
 Smith, Inc., 1620 1st Ave., No., Fargo, N. Dak. (B)
 Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H)
 Swingen Constr. Co., 901 N. 6th St., Grand Forks, N. Dak. (H)
 Tennesos Constr. Co., 1205 S. 9th St., Box 1363, Fargo, N. Dak. (H)
 Tri-State Excavating Co., P. O. Box 1566, Fargo, N. Dak. (Hvy)
 Valley Engr. & Constr. Co., 1102 S. Washington, Grand Forks, N. Dak. (H-Hvy)

34. OHIO

(a) AKRON CHAPTER

President—Walter A. Jesse, 450 Hickory St., Akron, Ohio
Secretary—Wayne L. Myers, Builders Exchange Bldg., Akron 10, Ohio
Telephone: Hemlock 3636
 Carmichael Constr. Co., The P. O. Box 590, Akron 9, Ohio (B-Hvy)
 Carter, C. E., 16 W. Burns Ave., Akron 10, Ohio (B)
 Cleaver, David, Co., 390 Morgan Ave., Akron 11, Ohio (B)
 Clemmer Constr. Co., Inc., 134 E. Thornton St., Akron 11, Ohio (B)
 D'Alessio Constr. Co., 595 E. Tallmadge Ave., Akron 10, Ohio (B-H-Hvy)
 DeLuca Constr. Co., 1055 Grant St., Akron, Ohio (H-Hvy)
 Frank, P. L., Constr. Co., The, 421 W. Highland Ave., Ravenna, Ohio (B)
 Helbig, A. S., Co., The, 39 N. Valley St., Akron, Ohio (Hvy)

Jackson, Geo. R., Co., The, 266-268 Park St., Akron, Ohio (B)
 Jacobson, John, Co., The, 1046 N. Main St., Akron 10, Ohio (B-Hvy)
 Jesse, Walter A., 450 Hickory St., Akron, Ohio (B)
 Lindstrom & Swanson, Inc., 776 N. Main St., Akron, Ohio (B)
 Milette Constr. Co., 2473 State Rd., Cuyahoga Falls, Ohio (B)
 Perry, B. F., 760 Home Ave., Akron, Ohio (B-Hvy)
 Rottmayer Constr. Co., 319 Power St., Akron 11, Ohio (B)
 Summit Constr. & Fixture Co., 561 Washington St., Akron, Ohio (B)
 Weinstein Constr. Co., 573 E. Tallmadge Ave., Akron, Ohio (B)

(b) CINCINNATI CHAPTER

President—Louis Richter, Richter Transfer Co., 1249 W. 7th St., Cincinnati 3, Ohio
Manager—J. A. Higgins, 903 Times Star Tower, Cincinnati 2, Ohio
Telephone: Parkway 3560
 Ajax Constr. Co., The, 6319 Wiehe Rd., Cincinnati 13, Ohio (B)
 Armo Drainage & Metal Prods., Inc., Central Div., Box 170, Middletown, Ohio (H-Hvy-RR)
 Boyajohn, Haig M., & Assos., Inc., 990 W. 3d Ave., Columbus 8, Ohio (B)
 Brewer Co., 7455 Dawson Rd., Madeira, Ohio (H-Hvy)
 Brose Constr. Co., 5431 Hetzel Ave., Cincinnati 27, Ohio (B)
 Byrnes-Conway Co., 50 Oak St., St. Bernard, Cincinnati 17, Ohio (H-Hvy)
 Crawley, David, Box 91, College Hill, Cincinnati 24, Ohio (H-Hvy)
 Crumley, Jones & Crumley Co., The, 7234 Blue Ash Ave., Deer Park 13, Ohio (H-Hvy)
 Danis, B. G., Co., 1518 E. 1st St., Dayton 3, Ohio (B)
 Ferro Concrete Constr. Co., 203 W. 3d St., Cincinnati 2, Ohio (B-Hvy)
 Fisher-DeVore Constr. Co., 3629 Idlewild Ave., Cincinnati 7, Ohio (B)
 Foley Constr. Co., 5050 Orchard St., Cincinnati 12, Ohio (H-Hvy-RR)
 Harper, W. L., Co., 2910 E. Highland Ave., Cincinnati 12, Ohio (H-Hvy)
 Jurgensen, John R., Round Bottom & N. & W. R. R., Newtown, Ohio (H-Hvy)
 Maescher, Chas. V., & Co., 2106 Florence Ave., Cincinnati 6, Ohio (B-Hvy)
 Marcus, M., Bldg. Co., 2109 Reading Rd., Cincinnati 2, Ohio (B)
 McCarthy, Ed. A., & Son, Box 55, Station E, Cincinnati 19, Ohio (B-RR)
 Messer, Frank, & Sons, Inc., 4612 Paddock Rd., Cincinnati 29, Ohio (B-Hvy)
 Meyer-Hecht Co., 2824 Stanton Ave., Cincinnati 6, Ohio (B)
 Miller, H. W., Constr. Co., Inc., 1511 Neave St., Covington, Ky. (B-Hvy)

Murdock Constr. Co., The, 1686 West St., Norwood 12, Ohio (H-Hvy)
 O'Connell & Sweeney, Inc., 1640 Lionel, Box 56, Station F, Cincinnati 4 Ohio (H-Hvy)
 Penker Constr. Co., The, 1030 Summer St., Cincinnati 4, Ohio (B-Hvy)
 Peters, Paul C., Co., Rm. 27, Kenton Bldg., 2318 Monroe St., Toledo 2, Ohio (B)
 Richardson Constr. Co., Inc., 5236 Kennedy Ave., Cincinnati 13, Ohio (H)
 Richter Transfer Co., 1249 W. 7th St., Cincinnati 3, Ohio (H-Hvy)
 Ruebel, S. A., & Co., 800 Ross Ave., Cincinnati 17, Ohio (H-Hvy-RR)
 Scully Bros., 405 Atlas Bank Bldg., Cincinnati 2, Ohio (H)
 Shook, Chas. H., 582 W. 2d St., Dayton 1, Ohio (B)
 Skilken, Jos., & Co., 44 E. Broad St., Columbus 15, Ohio (B-Hvy)
 Swan Constr., Inc., P. O. Box 1727, Cincinnati 1, Ohio (B-Hvy)
 Vest & Bartell Constr. Co., 4438 Appleton St., Cincinnati 9, Ohio (H-Hvy)
 Vulcan Copper & Supply Co., The, Constr. Div., 120 Sycamore St., Cincinnati 2, Ohio (B-Hvy)
 Wagner, Inc., 3855 Alta Ave., Silverton, Cincinnati 36, Ohio (B-H-Hvy)
 Warm, J. & E., Co., The, 2335 Florence Ave., Cincinnati 6, Ohio (B-Hvy)
 Zull, C. Louis, Rm. 200, 1015 Vine St., Cincinnati 2, Ohio (B)

(c) CLEVELAND CHAPTER

President—Frank K. Harmon, The Brown Constr. Co., 2520 Payne Ave., Cleveland 14, Ohio
Executive Secretary—Chas. W. Jauch, 1737 Euclid Ave., Cleveland 15, Ohio
Telephone: Main 4000
 Alger-Rau, Inc., 17024 Miles Ave., Cleveland 28, Ohio (B)
 Bolton-Pratt Co., The, 1276 W. 3d St., Cleveland 13, Ohio (B)
 Brown Constr. Co., The, 2520 Payne Ave., Cleveland 14, Ohio (B)
 Burton, Chas. A., Inc., 12600 Triskett Rd., Cleveland 11, Ohio (B)
 Carbone, R. P., Constr. Co., 1504 Scovill Ave., Cleveland 15, Ohio (B)
 Christian, J. E., Co., The, 5703 Curtiss Ave., Cleveland 3, Ohio (B)
 Cleveland Constr. Co., The, 3866 Carnegie Ave., Cleveland 15, Ohio (B)
 Demshar Bldrs. Co., Inc., 882 E. 140th St., Cleveland 10, Ohio (B)
 Duffy Constr. Co., 540 Terminal Tower, Cleveland 13, Ohio (B)
 Dunbar Co., The, 8201 Cedar Ave., Cleveland 3, Ohio (B)
 Dunlop & Johnston, Inc., 1950 Lee Rd., Cleveland Heights 18, Ohio (B)
 Emerson, Sam W., Co., The, 1836 Euclid Ave., Cleveland 15, Ohio (B)
 Esch Constr. Co., 812 Caxton Bldg., Cleveland 15, Ohio (B)
 Ferguson, H. K., Co., The, 1783 E. 11th St., Cleveland 14, Ohio (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

OHIO—Continued

Freeman & Jones, Inc., 6007 Euclid Ave., Cleveland 3, Ohio (Hvy-RR)
 Gaspard Constr. Co., The, 2193 Concord Dr., Cleveland 7, Ohio (B)
 Gillmore-Olson Co., The, 1873 E. 55th St., Cleveland 3, Ohio (B)
 Henderson, David, & Son, 7808 Kinsman Rd., Cleveland 4, Ohio (B)
 Higley, Albert M., Co., The, 2036 E. 22d St., Cleveland 15, Ohio (B)
 Humel Constr., Inc., 17706 Miles Ave., Cleveland 22, Ohio (B)
 Hunkin-Conkey Constr. Co., The, 1740 E. 12th St., Cleveland 14, Ohio (B-Hvy)
 Hunting, J. L., Co., The, Chester-9th Bldg., Cleveland 14, Ohio (B)
 Klefman, H. E., Co., The, 3436 Lorain Ave., Cleveland 13, Ohio (B)
 Krill, Leonard H., Co., The, 2169 E. 33d St., Cleveland 15, Ohio (B)
 Masters & Mullen Constr. Co., The, 437 Chester-12th Bldg., Cleveland 14, Ohio (B)
 Minton Constr. Co., 4500 Euclid Ave., Cleveland 3, Ohio (B-Hvy)
 Mitzel Co., The, 1836 Euclid Ave., Cleveland 15, Ohio (B)
 National Concrete Fireproofing Co., The, 556 Terminal Tower Bldg., Cleveland 13, Ohio (B)
 Paugh & Brown, Inc., 6007 Euclid Ave., Cleveland 3, Ohio (B)
 Peck & Udell Constr. Co., The, 4500 Euclid Ave., Cleveland 3, Ohio (B)
 Rankin, D. W., Inc., 1836 Euclid Ave., Cleveland 15, Ohio (B)
 Regan, C. T., Constr. Co., The, 1900 Euclid Ave., Cleveland 15, Ohio (B)
 Roediger Constr., Inc., 1737 Euclid Ave., Cleveland 15, Ohio (B)
 Rutherford, Geo. A., Co., The, 2725 Prospect Ave., Cleveland 15, Ohio (B)
 Schirmer-Peterson Co., The, 6830 Beaver Ave., Cleveland 4, Ohio (B)
 Schirmer-Schneider Co., The, 2719 Detroit Ave., Cleveland 13, Ohio (B)
 Schloss, Wm. L., Asphalt Paving Co., 3494 Lee Rd., Cleveland 20, Ohio (H)
 Schmidt, Leo W., Co., 10000 Granger Rd., Cleveland 5, Ohio (B)
 Slatmyer, Henry G., & Son Constr. Co., The, 203 Lakeside Ave., N. W., Cleveland 13, Ohio (B)
 Smith, Howard L., 664 Green Rd., Cleveland 21, Ohio (B)
 Ursprung, R. S., Co., Hanna Annex, Cleveland 15, Ohio (B)
 Vokes, H. L., Co., Inc., 1000 Wayside Rd., Cleveland 10, Ohio (B)

(d) OHIO HIGHWAY CHAPTER

President—V. N. Holderman, V. N. Holderman & Sons, Inc., 890 E. Oakland Park Ave., Columbus 11, Ohio
Executive Secretary—Chas. E. McKee, 40 W. Gay St., Room 301, Columbus 15, Ohio
Telephone: Fletcher 1579
 Baker & Hickey Co., The, 2170 Eakin Rd., Columbus 4, Ohio (Hvy-RR)
 Baltes, A. J., Inc., 181 Benedict Ave., Norwalk, Ohio (H)

Brewer & Brewer Sons, Inc., 81 W. Water St., Chillicothe, Ohio (H)
 Burns, A. W., Constr. Co., The, 424 Woodland Ave., Columbus 3, Ohio (H)
 Calaway, C. P., 1220 Madison Ave., Toledo 2, Ohio (H)
 Christopher Constr. Co., 40 W. Gay St., Columbus 15, Ohio (Hvy)
 Complete General Constr. Co., 1221 E. 5th Ave., Columbus 3, Ohio (H-Hvy)
 Dienst, Robt. J., 297 S. High St., Columbus 15, Ohio (H)
 Elliott, W. J., McConnelsville, Ohio (H)
 Frowine Constr. Corp., 821 Prospect St., Portsmouth, Ohio (H-Hvy)
 Goss, Jos. H., 304 Parker Dr., Newark, Ohio (H)
 Halpin, L. H., 2301 Pemberton Dr., Toledo 6, Ohio (H-Hvy)
 Heffner Constr. Co., The, 222 Fulton St., Celina, Ohio (H)
 Herring, Geo. B., & Son, Inc., 30 Junction St., Mansfield, Ohio (H)
 Hill, John, Contr. Co., The, 491 Lexington Ave., Mansfield, Ohio (H-Hvy)
 Holderman, V. N., & Sons, Inc., 890 E. Oakland Park Ave., Columbus 11, Ohio (H-Hvy-RR)
 Holt, H. W., & Son, 998 W. Mound St., Columbus 8, Ohio (H)
 Howard, G. F., Constr. Co., Inc., W. Main St., Canfield, Ohio (B-H-Hvy)
 Johnson, S. E., Co., The, Box 29, Maumee, Ohio (H)
 Johnson, W. L., Constr. Co., & Associates, 209 E. High St., Hicksville, Ohio (H-Hvy)
 Koski Constr. Co., The, National Bank Bldg., Ashtabula, Ohio (H)
 Langenderfer, Arthur S., Inc., P. O. Box 815, Toledo 1, Ohio (H)
 Loesch & Green Constr. Co., The, 4100 Brookpark Rd., Cleveland 29, Ohio (H-Hvy)
 Mansfield Asphalt Paving Co., R. 153 Orange St., Mansfield, Ohio (H)
 Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
 Ohio Road Improvement Co., 30 E. Broad St., Columbus 15, Ohio (H)
 Peirce Constr. Co., The, 3005 Bellevue Rd., Toledo 6, Ohio (H)
 Purdy Constr. Co., The, 200 E. Longview Ave., Box 437, Mansfield, Ohio (H-Hvy-RR)
 Red Eagle Corp., The, 176 Walhalla Rd., Columbus, Ohio (B-H)
 Replogle, C. F., 153 Montclair Ave., Circleville, Ohio (B-H)
 Ringwald, W. H., & Sons Co., The, 42 E. 2d St., Chillicothe, Ohio (H-Hvy)
 Southern Quarries & Contr. Div. of the N. Y. Coal Sales Co., 150 E. Broad St., Columbus 15, Ohio (H)
 Tri-State Asphalt Corp., S. Broadway, Martins Ferry, Ohio (H)
 Visintine & Co., 1315 Edgehill Rd., Columbus 8, Ohio (H)
 Vogt, Elmer, Inc., 859 Wellman Ave., S. E., Massillon, Ohio (H-Hvy-RR)
 Zeller, Max J., Inc., 297 S. High St., Columbus 15, Ohio (H)

(e) ASSOCIATED BUILDING CONTRACTORS OF TOLEDO, INC.

President—Wm. H. Comte, Comte Constr. Co., 912 Summit St., Toledo 4, Ohio
 Bentley, A., & Sons Co., The, 201 Belmont Ave., Toledo 2, Ohio (B-Hvy)
 Comte Constr. Co., 912 Summit St., Toledo 4, Ohio (B)
 Lathrop, Geo. W., & Sons, Inc., Box 772, Toledo 1, Ohio (B)
 Naumann, John, & Sons, Inc., 364 Parker Ave., Toledo 5, Ohio (B)
 Spieker, Henry J., Co., The, 1418 Elm St., Toledo 1, Ohio (B)
 Watts Constr. Co., The, 1235 Miami St., Toledo, Ohio (B-Hvy)

(f) THE MAHONING & SHENANGO VALLEY CHAPTER

President—James P. Lombard, J. P. Lombard Co., 211 N. Champion St., Youngstown 3, Ohio
Executive Secretary—John E. Morley, 211 N. Champion St., Youngstown 3, Ohio
Telephone: 44129
 Bucheit, Jos., & Sons Co., The, 819 Mahoning Ave., Youngstown, Ohio (B)
 Builders Co., Inc., of Youngstown, Ohio, The, 5405 Market St., Youngstown 12, Ohio (B)
 Campbell Constr. Co., The, P. O. Box 1190, N. River Rd., Warren, Ohio (B)
 DiCicco, Philip, Constr. Co., Western Reserve Rd., R. D. #1, Poland, Ohio (B)
 Fortunato, Rocco, & Sons, 2361 Coronado Ave., Youngstown, Ohio (B)
 Gibson, W. B., Co., Inc., The, 200 Chestnut St., N. E., Warren, Ohio (B)
 Heller-Murray Co., The, 222 W. Rayen Ave., Youngstown, Ohio (B)
 Johnson, Adolph, & Son, Co., 661 Wick Ave., Youngstown, Ohio (B)
 Katzman, Emanuel, Co., 116 Linden Ave., Youngstown, Ohio (B)
 Lombard, J. P., Co., 211 N. Champion St., Youngstown 3, Ohio (B)
 Murphy, Geo. J., & Co., 519 Belmont Ave., Youngstown, Ohio (B)
 Pesa, Felix, & Sons Co., The, 745 Andrews Ave., Youngstown, Ohio (B)
 Salvidge, E. J., Constr. Co., 3026 Southern Blvd., Youngstown 7, Ohio (B)
 Shutrump, Chas., & Sons Co., The, 101 W. Hylda St., P. O. Box 366, Youngstown, Ohio (B)
 Wallstrom, Geo. W., Inc., 109 E. Rayen Ave., Youngstown, Ohio (B)
 Warren Engr. Co., 402 Atlantic St., N. W., P. O. Box 191, Warren, Ohio (B)
 Western Reserve Bldg. Co., Inc., The, 428 Main Ave., S. W., Warren, Ohio (B)

Local Members

Bauer, Martin L., Construction Company, 1909 Manchester Ave., Middletown 22, Ohio (B)
 Benzing, A., & Sons, 709 S. 9th St., Hamilton, Ohio (B)

OHIO—Continued

Elford, E., & Son, Inc., 555 S. Front St., Columbus 15, Ohio (B-Hvy-RR)
 Johnston, Guy, Lumber & Supply Co., The, 802-810 N. 7th St., Steubenville, Ohio (B)
 Steinkle-Wolfe, Inc., 128 N. Jefferson St., Fremont, Ohio (B)

35. OKLAHOMA

(a) OKLAHOMA BUILDERS CHAPTER

President—Earl Tankersley, Builders Constr. Co., 409 Kerr-McGee Bldg., Oklahoma City 2, Okla.
Executive Secretary—Mrs. Ruth Ann Leslie, 709 Cravens Bldg., Oklahoma City 2, Okla.
Telephone: 3-8408

Barbour & Short, 323 E. Mosier, Norman, Okla. (B)
 Basanda Constr. Co., 2925 N. W. 39th Terr., Oklahoma City, Okla. (Hvy)
 Bass, D. C., & Sons Constr. Co., 314-16 Bass Bldg., P. O. Box 246, Enid, Okla. (B)
 Bollinger, J. J., Constr. Co., Box 1333, Oklahoma City 1, Okla. (B)
 Brooks, Larry T., P. O. Box 2113, Tulsa, Okla. (B)
 Builders Constr. Co., 409 Kerr-McGee Bldg., Oklahoma City 2, Okla. (B)
 Burns-Brandes Constr. Co., P. O. Box 5235, Tulsa, Okla. (B)
 Burton-Miller Constr. Co., Inc., P. O. Box 57, Ardmore, Okla. (B)
 Bush, E. B., Constr. Co., P. O. Box 5126, Farley Sta., Oklahoma City 7, Okla. (B)
 Chapman Constr. Co., P. O. Box 170, Lawton, Okla. (B)
 Corely, J. S., Constr. Co., 27th & N. Santa Fe, Oklahoma City 5, Okla. (B)
 Cowen Constr. Co., 214 N. Broadway, Shawnee, Okla. (B)
 Culwell, Haskell, Constr. Co., 40 N. E. 28th, Oklahoma City, Okla. (B)
 Cummins, H. E., & Sons, 1702 Cypress (East), Enid, Okla. (B)
 Dennehy Constr. Co., 408 Braniff Bldg., Oklahoma City 2, Okla. (B)
 DeWitt Co., The, P. O. Box 7087, Tulsa, Okla. (B)
 Ditmars-Dickmann-Pickens Constr. Co., 3712 W. Okmulgee, Muskogee, Okla. (B)
 Dunning, Chas. M., Constr. Co., P. O. Box 1183, Oklahoma City 1, Okla. (B)
 Eldridge Constr. Co., P. O. Box 922, Enid, Okla. (B)
 Frederickson-Parks, Inc., 25 N. E. 28th, Oklahoma City, Okla. (B)
 Gehring, C. L., 111 S. Chickasaw, Bartlesville, Okla. (B)
 Grimshaw, W. R., Co., 208-212 KOME Bldg., 8th & Main Sts., Tulsa 3, Okla. (B-Hvy)
 Hannaford Constr. Co., P. O. Box 1717, Tulsa, Okla. (B)
 Harmon Constr. Co., P. O. Box 1414, 100 S. Indiana, Oklahoma City 1, Okla. (B)
 Hoke Constr. Co., P. O. Box 431, Stillwater, Okla. (B)

Horster Constr. Co., National Bank of Tulsa Bldg., Tulsa 3, Okla. (B)
 Hughes, Chas. T., Constr. Co., 21 N. E. 29, Oklahoma City, Okla. (B)
 Industrial Constr. Co., 1627 W. Main, Oklahoma City 4, Okla. (B)
 J & J Constr. Co., 1801 Petroleum Bldg., Oklahoma City 2, Okla. (Hvy)
 Lippert Bros., 27th & N. Santa Fe, P. O. Box 3085, Oklahoma City 5, Okla. (B-Hvy)
 Lohmann, H. R., Co., Philtower Bldg., Tulsa 3, Okla. (B)
 Manhattan Construction Co., Manhattan Bldg., Muskogee, Okla. (B-Hvy)
 Martin, John B. Co., Commerce Exchange Bldg., Oklahoma City 2, Okla. (B)
 Mattern Constr. Co., 3130 Woodward Blvd., Tulsa, Okla. (B)
 Mattison, R. E., & Co., Box 8458, Britton Sta., Oklahoma City, Okla. (B-H)
 McCrae & Nofstger, 5236 Classen, Oklahoma City, Okla. (B)
 Mefford Constr. Co., P. O. Box 668, Enid, Okla. (B)
 Nashert, Walter, Co., 16 N. E. 27th, Oklahoma City 5, Okla. (B)
 Putney, John H., Constr. Co., 133 W. 2d St., Oklahoma City 3, Okla. (B)
 Reardon, J. J., Constr. Co., P. O. Box 285, Enid, Okla. (B)
 Redding, Harold L., & Assos., American National Bank Bldg., P. O. Box 1246, Lawton, Okla. (B)
 Secor Bldg. Co., Inc., P. O. Box 3135, Oklahoma City 5, Okla. (B)
 Shelton, W. C., Co., The, 515 S. 4th St., Lawton, Okla. (B)
 Smith, L. E., Constr. Co., P. O. Box 1692, 4944 E. 16th St., Tulsa, Okla. (B)
 Suttle, Chas. M., 12 N. W. 8th St., Oklahoma City 3, Okla. (B)
 Tankersley Constr. Co., 803 1st National Bldg., Oklahoma City 2, Okla. (B)
 Thurman, John M., P. O. Box 1076, Borger, Texas (B)
 Tulsa Rig, Reel & Mfg. Co., 1101 Philtower Bldg., P. O. Box 490, Tulsa 1, Okla. (B)
 Walco Engr. & Constr. Co., P. O. Box 3037, Whittier Sta., Tulsa 8, Okla. (B)
 Wells Constr. Co., P. O. Box 4067, Walker Sta., Tulsa 9, Okla. (B)
 Whitehurst Constr. Co., 113 Glenside Ave., Ponca City, Okla. (B)

(b) ASSOCIATION OF OKLAHOMA GENERAL CONTRACTORS

President—John C. McConnell, McConnell Constr. Co., Rt. 3, Box 619, 4820 N. W. 16th St., Oklahoma City 7, Okla.
Manager—Glenn McDonald, 715 Wells-Roberts Hotel, Oklahoma City, Okla.
Telephone: 2-4265
 Allen, D. F., 523 W. Broadway, Henryetta, Okla. (H)
 Amis Constr. Co., 1647 Exchange Ave., Box 1871, Oklahoma City, Okla. (H-Hvy-RR)
 Anchor Constr. Co., 806-808 Manhattan Bldg., Muskogee, Okla. (H-Hvy)
 Anderson Constr. Co., Box 91, McAlester, Okla. (H-RR)

Austin Contr. Co., 1000 Singleton Blvd., P. O. Box 1590, Dallas, Texas (B-H-RR)
 Banta Constr. Co., 1646 W. Main, Oklahoma City 4, Okla. (H)
 Barber Bros., 724 Wheeler Ave., P. O. Box 374, Fort Smith, Ark. (H-Hvy-RR)
 Barber, E. E., Constr. Co., 1521 George Ave., Box 254, Fort Smith, Ark. (H-RR)
 Baughman, Roy, 4001 N. W. 9th, Oklahoma City, Okla. (H)
 Biles, J. B., Constr. Co., Arnote Bldg., P. O. Box 22, McAlester, Okla. (H)
 Blackburn, W. H., Constr. Co., 1916 N. Broadway, Oklahoma City, Okla. (H-RR)
 Brewer & McMichael, Inc., 314 W. 7th, Box 308, Holdenville, Okla. (H)
 Briscoe, J., Box 188, 414 E. 11th Ave., Stillwater, Okla. (H)
 Broce Constr. Co., P. O. Box 521, Woodward, Okla. (H)
 Cohenour Constr. Co., Gilbert Bldg., Box 884, Ardmore, Okla. (H)
 Dahlgren & Brooks, 745 Commerce Exchange Bldg., Oklahoma City, Okla. (H)
 Durrett, Jack, Box 600, Keota, Okla. (H-RR)
 Elliott Bros., Inc., 425 Locust St., Box 425, Perry, Okla. (H)
 Ertz, John, Constr. Co., 2112 N. W. 27th St., Oklahoma City, Okla. (H)
 Evans, S. E., Constr. Co., Box 903, Fort Smith, Ark. (H-Hvy-RR)
 Fisher, J. M., 303 E. Castro, Norman, Okla. (H)
 Fisher, L. S., Woodward, Okla. (B-H-Hvy)
 Frost Constr. Co., Hydro, Okla. (H)
 Fullerton & Hussey, 1600 S. Western, Oklahoma City, Okla. (H-Hvy)
 Fulton, W. D., Constr. Co., 2304 N. W. 28th, Oklahoma City, Okla. (H)
 G-I Constr. Co., Box 116, Meeker, Okla. (H)
 Gaines Bros., 530 D St., N. E., Box 1006, Miami, Okla. (B-H-Hvy)
 General Constr. Corp., Capitol Post Office, Box 3097, Oklahoma City, Okla. (H-Hvy)
 Gragg, O. R., Box 261, Henryetta, Okla. (H)
 Groseclose, Myron, 30th and Council Rd., Bethany, Okla. (H-Hvy-RR)
 Hammock, R. W., Rt. 1, Van Buren, Ark. (B-H-Hvy-RR)
 Henryetta Constr. Co., Henryetta, Okla. (H-Hvy)
 Hodges Constr. Co., 1633 N. Eastern, Oklahoma City, Okla. (H)
 Honegger Bros. Constr. Co., Kingfisher, Okla. (H)
 Hunter Constr. Co., Box 538, Ada, Okla. (H-Hvy-RR)
 Imperial Paving Co., 700 E. Grand Ave., Oklahoma City 4, Okla. (H-Hvy)
 James, Guy H., Constr., 1816 1st National Bldg., Oklahoma City 2, Okla. (H)
 Kealiber, Paul A., 1217 W. 2d, Checotah, Okla. (H)
 Keck, G. E., Fairview, Okla. (B-H-Hvy)
 Kiewit, Peter, Sons' Co., 1611 N. Broadway, Rm. 205, Oklahoma City, Okla. (H-Hvy)
 Kimsey, Bill, Constr. Co., 101 N. Mill St., Pryor, Okla. (H)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

OKLAHOMA—Continued

Landt, H. R., 2136 N. W. Park Pl., Oklahoma City, Okla. (H)

Layman & Co., P. O. Box 2395, Tulsa, Okla. (H)

Lemon, Haskell, P. O. Box 7115, Oklahoma City, Okla. (H)

Logan, W. E., & Sons, 906 Barnes Bldg., P. O. Box 207, Muskogee, Okla. (H-Hvy)

Lyles & Buckner Constr., Box 23, Muskogee, Okla. (B-H)

McClinton Bros. Constr. Co., 310 Ozark Theatre Bldg., Box 749, Fayetteville, Ark. (H)

McConnell Constr. Co., Rt. 3, Box 619, Oklahoma City, Okla. (H)

McMichael Concrete Co., 1113 Hunt Bldg., Tulsa 3, Okla. (H-Hvy)

Metropolitan Paving Co., 300 S. Indiana, Box 3686, Oklahoma City, Okla. (H)

Moore Bridge Co., Inc., Box 907, Ada, Okla. (H-Hvy)

Mortman, J. W., & Son, 2629 W. Broadway, Muskogee, Okla. (H)

Mosher & Kiker, El Reno, Okla. (H)

Mullinix Constr. Co., 1433 N. W. 5th St., Oklahoma City 6, Okla. (H)

Oklahoma Paving Co., 4131 N. Portland, Oklahoma City, Okla. (H)

Pallesen Constr. Co., 2808 N. W. 18, Oklahoma City, Okla. (H)

Park-Ward Co., 711 N. W. 38th St., Oklahoma City, Okla. (H-Hvy)

Plymate, Clay, Co., Inc., Box 7027, 39th Street Sta., Oklahoma City, Okla. (H)

Poston Sand & Gravel, 6th Ave., E., Lawton, Okla. (H-RR)

Quapaw Co., The, A St. & Connell Ave., P. O. Box 241, Picher, Okla. (H)

Raines, J. A., P. O. Box 936, Muskogee, Okla. (H-Hvy)

Ryan, R. R., Constr. Co., 1401 N. W. 5, Oklahoma City, Okla. (H)

Sawallisch Constr. Co., 200 W. Elm, P. O. Box 782, El Reno, Okla. (H)

Smith Bros., Noble, Okla. (H)

Smith, Noland, Constr. Co., Box 761, El Reno, Okla. (H)

Stamey Constr. Co., 1120 Hales Bldg., Oklahoma City, Okla. (H-Hvy-RR)

Standard Paving Co., 2119 E. 11th St., Tulsa, Okla. (H)

Stebbins Constr. Co., Box 1498, Tulsa, Okla. (H-Hvy)

Steelman Constr. Co., 2800 N. E. 4th St., P. O. Box 1283, Oklahoma City, Okla. (H-Hvy)

Steinberg Constr. Co., 1514 S. 79th East Ave., Tulsa, Okla. (H)

Stigler Constr. Co., P. O. Box 237, Stigler, Okla. (H-Hvy)

Thompson, Jim S., 2209 N. Shartel, Oklahoma City, Okla. (H-Hvy)

Tway, R. R., Co., 710 N. E. 19, Oklahoma City, Okla. (B-H-Hvy)

Weaver, M. O., Inc., P. O. Box 1406, Muskogee, Okla. (H)

Youngman, H. D., P. O. Box 166, Baxter Springs, Kans. (H-Hvy-RR)

36. OREGON

(a) PORTLAND CHAPTER

President—H. G. Palmberg, Pier 3, Port Docks, P. O. Box 991, Astoria, Oreg. Manager—A. H. Harding, Suite 112, Multnomah Hotel, Portland 4, Oreg. Telephone: Atwater 7339

Acme Constr. Co., P. O. Box 306, Eugene, Oreg. (H-Hvy)

Adler Constr. Co., P. O. Box 595, Loveland, Colo. (H-Hvy-RR)

Arenz, Theo. & J. M., 1601 N. E. Columbia Blvd., Portland 11, Oreg. (H-Hvy-RR)

Asphalt Paving Co., P. O. Box 547, Klamath Falls, Oreg. (H-Hvy)

Atkinson, Guy F., Co., 5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Oreg. (B-H-Hvy-RR)

Babler Bros., 4617 S. E. Milwaukie Ave., Portland 2, Oreg. (H-Hvy)

Beebe, Del R., Constr. Co., W. 11th Ave., P. O. Box 138, Eugene, Oreg. (H-Hvy)

Benold, A. Wilson, 1500 E. 8th St., Bend, Oreg. (B-Hvy)

Birkemeier & Saremal, 301 Lewis Bldg., Portland 4, Oreg. (B-H-Hvy)

Brittan, J. P., & Co., 5603 S. W. Hood St., Portland 1, Oreg. (H-Hvy)

Buckler, Geo. H., Co., 4235 S. E. 17th Ave., Portland 2, Oreg. (B-H-Hvy-RR)

Burger, Michael T., 5928 N. E. 33d Ave., Portland 11, Oreg. (B-Hvy)

Butler, Oscar, & Son, 317 Builders Exchange Bldg., Portland, Oreg. (H-Hvy)

Cascade Constr. Co., Foot of S. W. Abernathy, Portland 1, Oreg. (H-Hvy)

Central Heating Co., The, 865 Olive St., Eugene, Oreg. (H-Hvy)

Coast Constr. & Excavating Co., Box 458, Junction City, Oreg. (H-Hvy)

Compton, J. C., Co., Box 86, McMinnville, Oreg. (H-Hvy)

Conley, J. N. & M. J., 4332 N. E. Royal Ct., Portland 13, Oreg. (Hvy)

Coos Bay Dredg. Co., Inc., P. O. Box 217, Coos Bay, Oreg. (Hvy)

D-H Paving Co., Rt. 1, Box 148-A, 6800 Evergreen Hwy., Vancouver, Wash. (H)

Dennis, G. D., & Sons, 7355 S. E. Johnson Creek Blvd., Portland 6, Oreg. (H-Hvy)

Drake, Donald M., Co., 904 Lewis Bldg., Portland, Oreg. (B-Hvy)

Earley, Roy T., Co., 321 Middle Waterway, P. O. Box 1591, Tacoma, Wash. (B-Hvy)

Edelstein-Weygandt Co., P. O. Box 885, Canby, Oreg. (H-Hvy)

Empire Constr. Co., 0234 S. W. Bancroft St., Portland 1, Oreg. (H-Hvy)

Erland & Blicke, 8265 N. Borthwick, P. O. Box 1945, Portland 11, Oreg. (Hvy)

Fox, A. T., 1735 Virginia Ave., North Bend, Oreg. (B-Hvy)

Gates, E. L., Inc., 444 Center St., Salem, Oreg. (H-Hvy-RR)

General Construction Company, P. O. Box 3860, 4850 N. W. Front Ave., Portland 8, Oreg. (B-H-Hvy-RR)

Gibbons & Reed Co., P. O. Box 223, Cascade Locks, Oreg. (H-Hvy-RR)

Gilo, Cosmo, Mehama, Oreg. (H-Hvy)

Goulter, K. L., & Co., P. O. Box 37, Dexter, Oreg. (H)

Hall, E. C., Co., 12012 S. W. Barbur Blvd., Portland 19, Oreg. (H-Hvy-RR)

Halvorson, Carl M., Inc., 218 Builders Exchange Bldg., Portland 4, Oreg. (H-Hvy)

Hamilton & Thoms, Box 726, Eugene, Oreg. (H-Hvy)

Harding Blasting Co., 206 S. E. 146th Ave., Portland 16, Oreg. (H-Hvy)

Harr & Horton, P. O. Box 5662, 9209 N. Calvert St., Portland 17, Oreg. (H-Hvy)

Hauser Constr. Co., 203 Multnomah Hotel, Portland 4, Oreg. (B-H-Hvy-RR)

Havlik, John, Jr., Scappoose, Oreg. (B-Hvy)

Healy, S. A., Co., P. O. Box 809, The Dalles, Oreg. (Hvy)

Heintz, R. A., Constr. Co., 211 N. E. Columbia Blvd., Portland 11, Oreg. (Hvy)

Henshaw Bros., 2627 N. E. Thompson, Portland 12, Oreg. (H-Hvy)

Hoffman, Lee, 56 S. E. Belmont St., P. O. Box 2028, Portland 14, Oreg. (H-Hvy)

Hoyt, Chas. H., 107 S. 1st, Silverton, Oreg. (H-Hvy)

Huenergard Elec. Co., 611 N. W. Glisan, Portland 9, Oreg. (H-Hvy)

Inter-City Sand & Gravel Co., Inc., 3698 Hwy. 99, So., Eugene, Oreg. (H-Hvy)

Jacobsen, K. F., & Co., Inc., 1601 N. E. Columbia Ave., Portland 11, Oreg. (H-Hvy)

James & Yost, Inc., 5910 N. E. Ainsworth St., P. O. Box 1025, Portland, Oreg. (B-Hvy)

Jarl, Vernie, Box 254, Gresham, Oreg. (H)

Kern & Kibbe, 8706 N. Bradford St., P. O. Box 2560, Portland 13, Oreg. (B-H-Hvy-RR)

Ketell Constr. Co., 224 Board of Trade Bldg., Portland 4, Oreg. (B-Hvy)

Kiewit, Peter, Sons' Co., 8th & Douglas, P. O. Box 491, Longview, Wash. (H-Hvy-RR)

Kirkpatrick Constr. Co., 1005 36th Ave., Milwaukie 22, Oreg. (B-Hvy)

Kuckenberg Constr. Co., 11104 N. E. Holman St., P. O. Box 7407, Parkrose Sta., Portland 20, Oreg. (B-H-Hvy-RR)

Larson Constr. Co., P. O. Box 120, Astoria, Oreg. (Hvy)

Lillebo, Tom, Reedsport, Oreg. (H-Hvy)

Lind, Geo. W., 5000 N. E. Killingsworth Ave., Portland 13, Oreg. (H-Hvy)

Lindstrom Bros., Inc., 7335 N. E. Broadway, Portland 16, Oreg. (B-H-Hvy)

Lininger, M. C., & Sons, Hamrick Rd., P. O. Box 1386, Medford, Oreg. (H)

Lord, P. S., Mechanical Contrs., 4507 S. E. Milwaukie Ave., P. O. Box 4505, Portland 2, Oreg. (Hvy)

Lyons, Frank, & Co., 5200 N. E. Alberta, Portland 13, Oreg. (H-Hvy-RR)

Macco Corp., 14409 S. Paramount Blvd., Paramount, Calif. (H-Hvy)

Malcom, C. T., 4085 N. Columbia Blvd., P. O. Box 5652, Kenton Sta., Portland, Oreg. (H-Hvy)

McCormack Constr. Co., S. E. 3d & Goodwin Sts., Pendleton, Oreg. (B-Hvy)

McDougall, Nait, Co., 824 Pittcock Block, Portland 5, Oreg. (B-H-Hvy-RR)

McKel, Inc., 6537 S. W. 45th Ave., Portland 19, Oreg. (B-Hvy)

McKenzie, D. F., 1465 Mission St., Salem, Oreg. (H-Hvy)

OREGON—Continued

McKinnon Constr. Co., Rt. 1, Box 187, Sandy, Oreg. (H-Hvy)
 McNary Dam Constr., P. O. Box 132, Umatilla, Oreg. (Hvy)
 McNutt Bros., 351½ E. Broadway, Eugene, Oreg. (H-Hvy-RR)
 Miller & Strong, Inc., 3871 Royal Rd., P. O. Box 292, Eugene, Oreg. (H-Hvy)
 Minnis & Shilling, 3144 W. 11th St., Eugene, Oreg. (H-Hvy)
 Montag, C. J., & Sons, 7805 N. E. Halsey, Portland 13, Oreg. (B-H-Hvy)
 Morrison & Fisher, P. O. Box 82, Walla Walla, Wash. (H)
 Morrison-Knudsen Co., Inc., Amboy, Wash. (B-H-Hvy-RR)
 Newport Constr. Co., 7031 N. E. Halsey St., Portland 13, Oreg. (H-Hvy-RR)
 Norris, Guy J., 1425 4th Ave., Seattle 1, Wash. (H)
 Olson, Russell, Constr. Co., 144 S. E. 1st Ave., P. O. Box 272, Pendleton, Oreg. (H)
 O'Neil, C. R., Box 42, Mitchell, Oreg. (H-Hvy)
 Oregon Asphaltic Paving Co., 0441 S. W. Porter, Portland 1, Oreg. (H-Hvy-RR)
 Palmberg, H. G., Pier 3, Port Docks, P. O. Box 991, Astoria, Oreg. (Hvy)
 Papin, J. C., P. O. Box 28, Ketchum, Idaho (H-Hvy-RR)
 Parker & Fuhrman Co., 500 Dekum Bldg., Portland, Oreg. (H-Hvy)
 Parker-Schram Co., 200 Builders Exchange Bldg., Portland 4, Oreg. (B-H-Hvy-RR)
 Perkins Bros., 8535 S. E. Stark St., Portland 16, Oreg. (H-Hvy)
 Peterson, H. M., & Co., 13548 N. E. Glisan, Portland 16, Oreg. (H-Hvy)
 Portland Tug & Barge Co., 8444 N. W. St. Helens Rd., P. O. Box 4199, Portland 8, Oreg. (Hvy-RR)
 R & M Constr. Co., 136 Main St., P. O. Box 1673, Central Point, Oreg. (H)
 Ramsey Constr. Co., 2399 N. 9th St., P. O. Box 507, Corvallis, Oreg. (H)
 Raymond Concrete Pile Co., 414 Equitable Bldg., Portland 4, Oreg. (Hvy)
 Robinson, Jack, Rt. 1, Box 15, Bend, Oreg. (H)
 Robson, R. M., 4720 N. E. Going St., P. O. Box 5085, Portland 13, Oreg. (B-Hvy)
 Rogers Constr. Co., 11760 N. E. Glisan, Portland 16, Oreg. (H-Hvy)
 Rudy, Eugene, Co., 2919 N. W. Nicolai St., Portland 10, Oreg. (Hvy)
 Rush Constr. Co., P. O. Box 34, Amboy, Wash. (H)
 Rushlight Automatic Sprinkler Co., 55 N. E. Farragut St., P. O. Box 1996, Piedmont Sta., Portland 11, Oreg. (B-Hvy)
 Sackett, Allen E., P. O. Box 296, 802 9th St., Hood River, Oreg. (H-Hvy)
 Salem Sand & Gravel Co., 1405 N. Front St., Salem, Oreg. (H-Hvy)
 Samuel, B. H., & Sons, 2114 N. E. 27th Ave., Portland 13, Oreg. (Hvy-RR)
 Saxton, A. H., & Sons, Rt. 2, P. O. Box 200, Corvallis, Oreg. (H-Hvy)
 Slate, Fred H. Co., Oreg. Ltd., 7805 S. W. 40th Ave., P. O. Box 7128, Portland 19, Oreg. (H-Hvy-RR)

Smith Bros. Gen. Contrs., Inc., 3801 4th Plain Rd., P. O. Box 96, Vancouver, Wash. (Hvy)
 Smith, W. C., Inc., 7402 S. W. Macadam Ave., Portland 1, Oreg. (B-H-Hvy)
 Snook Bros., P. O. Box 687, Corvallis, Oreg. (B-H-Hvy)
 Somers, F. L., P. O. Box 938, Klamath Falls, Oreg. (H-Hvy)
 Soule, O. L., 2645 S. E. 111th, Portland 66, Oreg. (B-H-Hvy)
 Starr, H. A., 2425 N. Commercial St., P. O. Box 7724, Portland 12, Oreg. (B-Hvy)
 State Constr. Co., 1245 Poplar Pl., Seattle 44, Wash. (H-Hvy)
 Stevenson Constr. Co., 2045 S. 19th St., Salem, Oreg. (H)
 Strong & Macdonald, Inc., 4045 Ruston Way, Tacoma 2, Wash. (H-Hvy)
 Tru-Mix Concrete Co., 248 McAndrews Rd., P. O. Box 1147, Medford, Oreg. (H-Hvy)
 United Constr. Co., 9898 N. E. Hancock Dr., Box 5075, Portland 13, Oreg. (B-H-Hvy-RR)
 Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif. (Hvy-RR)
 Ward, Ken, Constr. Co., 5120 S. E. Milwaukie Ave., Portland 2, Oreg. (B-Hvy)
 Warren Northwest, Inc., P. O. Box 5072, 9860 N. E. Hancock Dr., Portland 13, Oreg. (B-H-Hvy-RR)
 Watts, J. G., Constr. Co., 4538 S. W. Macadam Ave., Portland 1, Oreg. (B-H)
 Werner, H. C., Inc., 3170 W. 11th, Eugene, Oreg. (H-Hvy)
 White Bros. Constr. Co., Inc., P. O. Box 376, 3d & Sumach, Walla Walla, Wash. (H-Hvy)
 Willamette Tug & Barge Co., Ft. of N. Portsmouth, Box 2650, St. Johns Sta., Portland 3, Oreg. (Hvy)
 Williams Constr. Co., Rt. 1, Box 21, Tigard, Oreg. (H-Hvy-RR)
 Yett, Porter W., 6500 N. E. Ainsworth St., Portland 13, Oreg. (H-Hvy-RR)
 Yocom, O. C., 902 S. E. 11th St., P. O. Box 566, McMinnville, Oreg. (H-Hvy)

(b) PORTLAND CHAPTER, BUILDING DIVISION

President—Henry M. Mason, Henry M. Mason Co., Inc., 2206 N. W. Thurman, Portland 10, Oreg.
Secretary-Treasurer—Wilford C. Long, 4100 S. W. Barbur Blvd., Portland 1, Oreg.
Telephone: Atwater 3387
 Brewton, Howard, 716 N. E. 3d Ave., Portland 14, Oreg. (B)
 Burns, Tom, & Co., Inc., 2940 S. E. Belmont, Portland 15, Oreg. (B)
 Drake, Donald M., Co., 904 Lewis Bldg., Portland 4, Oreg. (B)
 Halvorson, Carl M., Inc., 218 Builders Exchange Bldg., Portland 4, Oreg. (B)
 Hammond, Ross B., Co., 1241 N. Williams Ave., P. O. Box 3901, Portland 8, Oreg. (B)
 Hoffman, L. H., 715 S. W. Columbia St., Portland 1, Oreg. (B)
 Hoffman, Lee, 56 S. E. Belmont St., P. O. Box 2028, Portland 14, Oreg. (B)

Industrial Engrs. & Contrs., Inc., 711 Middle Waterway, P. O. Box 1096, Tacoma, Wash. (B)
 Isackson, Geo. Co., 1825 S. E. Exeter Dr., P. O. Box 4620, Portland, Oreg. (B)
 Mason, Henry M., Co., Inc., 2206 N. W. Thurman, Portland 10, Oreg. (B)
 Parker-Johnson Co., 2002 S. E. Clinton, Portland 2, Oreg. (B)
 Petersen, A. V., Co., P. O. Box 2368, Portland 14, Oreg. (B)
 Ralph & Horwitz, 1835 N. Flint Ave., Portland 12, Oreg. (B)
 Reimers & Jolivet, 435 Builders Exchange Bldg., Portland 4, Oreg. (B)
 Robertson, Hay & Wallace, 1801 S. E. Grand Ave., Portland 14, Oreg. (B)
 Settergren, E. E., 3723 S. E. 21st Ave., P. O. Box 2351, Portland 14, Oreg. (B)
 Smith-Phillips Co., 7402 S. W. Macadam, Portland 1, Oreg. (B)
 Timber Structures, Inc., 3400 N. W. Yeon Ave., P. O. Box 3782, Portland 8, Oreg. (B)
 Viesko & Post, 1440 S. 13th St., P. O. Box 69, Salem, Oreg. (B)
 Waale-Campan Co., 2100 S. W. Jefferson St., Portland 1, Oreg. (B)

37. PENNSYLVANIA

(a) PENNSYLVANIA BUILDERS CHAPTER

President—A. E. Upton, Upton-Lang Co., 1009 Commerce Bldg., Erie, Pa.
Executive Director—Geo. M. Schmeltzer, 2501 N. Front St., Harrisburg, Pa. Telephone: 4-8056
 Alexander, H. B., & Son, Inc., 315 Vaughn St., Harrisburg, Pa. (B)
 Anderson, L. C., & Sons, Box 179, Huntingdon, Pa. (B)
 Austin, E. E., & Son, 1919 Reed St., Erie, Pa. (B)
 B. D. & W., Inc., P. O. Box 203, Lebanon, Pa. (B)
 Berkebile Bros., 626 Swank Bldg., Johnstown, Pa. (B)
 Berretta Constr. Co. (Rear), 242 W. 8th St., W. Wyoming, Pa. (B)
 Carstensen, Inc., 302 Swank Bldg., Johnstown, Pa. (B)
 Cump, Earl L., 251 Park Ave., Chambersburg, Pa. (B)
 Cuppels, F. J., 470 Tioga St., Kingston, Pa. (B)
 Curtis-Pethick Co., The, 1 Hickory St., Wilkes-Barre, Pa. (B)
 Davis, C. C., Constr. Co., Rear 220 Bridge St., New Cumberland, Pa. (B)
 Evert, S. H., Co., Inc., Danville Rd., P. O. Box 89, Bloomsburg, Pa. (B)
 Focht, L. H., & Son, Inc., 402 Baer Bldg., Reading, Pa. (B)
 Frazier-Davis Constr. Co., Morgantown, Pa. (B)
 Gehron, Jacob, Co., Inc., The, 607 Cemetery St., Williamsport 33, Pa. (B)
 Hafer, Guy J., 739 Fairground Ave., Chambersburg, Pa. (B)
 Haldeman, M. L., & Son, 103 W. Chocolate Ave., Hershey, Pa. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

PENNSYLVANIA—Continued

Helwig, Fred R., 801 State St., Millersburg, Pa. (B)
 Hunsicker, L. W., Co., 821 Chew St., Allentown, Pa. (B)
 Kline, Boyd H., Berwick Rd., Bloomsburg, Pa. (B)
 Machin, E. C., Inc., 1024 N. Quebec St., Allentown, Pa. (B)
 Mastriani, S. G., Co., Lincoln Bldg., P. O. Box 509, Scranton, Pa. (B)
 McKinney Constr. Co., Chestnut & Awl Sts., Sunbury, Pa. (B)
 Mowery, Raymond S., P. O. Box 367, Carlisle, Pa. (B)
 Noonan, R. S., Inc., 26 N. Duke St., York, Pa. (B)
 Orr, J. C., & Son, 438 7th Ave., Altoona, Pa. (B)
 Ortman & Reitze, P. O. Box 448, Meadville, Pa. (B)
 Outdoor Display Co., 28 E. Market St., Lewis- town, Pa. (B)
 Reindollar, I., & Son, Inc., 35 N. George St., York, Pa. (B)
 Ritter Bros., 1511 N. Cameron St., Harris- burg, Pa. (B)
 Seiple, Stanford C., 809 N. 7th St., Sunbury, Pa. (B)
 Sessinghaus & Ostergaard, Inc., 1115 Peach St., Erie, Pa. (B)
 Shenk, Henry, Co., 1115 Sassafras St., Erie, Pa. (B-Hvy)
 Sordani Constr. Co., Inc., 45 Owen St., Forty Fort, Wilkes-Barre, Pa. (B-Hvy)
 Spera Constr. Co., 227 State St., Harrisburg, Pa. (B)
 Tabone & Barbera, 186 N. Main St., Pittston, Pa. (B)
 Upton-Lang Co., 1009 Commerce Bldg., Erie, Pa. (B)
 Warner, A. R., & Son, 41 E. Main St., Waynesboro 41, Pa. (B)
 Williams, H. A., 437 N. 23d St., Allentown, Pa. (B)
 Wilson Constr. Co., Inc., 305 Bedford St., Johnstown, Pa. (B)
 Yenter, J. C., Chamber of Commerce Bldg., Tyrone, Pa. (B)

(b) MASTER BUILDERS ASSOCIATION OF ALLEGHENY COUNTY

President—Noble J. Dick, Dick Constr. Co., 2532 Library Rd., Pittsburgh 10, Pa.
Secretary—Wm. C. Bowden, 800 Stand- ard Life Bldg., Corner of 4th Ave. & Smithfield St., Pittsburgh 22, Pa.
Telephone: Atlantic 1-2594

Allegheny Bldg. & Supply Co., 9th & Bingham Sts., Pittsburgh 3, Pa. (B)
 Busse, Henry, 112 Wabash St., Pittsburgh 20, Pa. (B)
 Chilli, Geo. H., 1st National Bank Bldg., Homestead, Pa. (B)
 Crump, Edw., Jr., Inc., 4031 Bigelow Blvd., Pittsburgh 13, Pa. (B)
 Dick Constr. Co., 2532 Library Rd., Pitts- burg 10, Pa. (B)
 Eichleay Corp., 33 S. 19th St., Pittsburgh 3, Pa. (B)
 Fuller, George A., Company, 511 Wood St., Pittsburgh 22, Pa. (B)

Goodwin, C. J., 6201 Station St., Pittsburgh 6, Pa. (B)
 Groomes Constr. Co., 202 Highland Ave., Cheswick, Pa. (B)
 Harrison Construction Company, 1101 West- ern Ave., Pittsburgh 33, Pa. (B-H-Hvy)
 Hoffman, F., Co., 901 Wood St., Wilkins- burg 21, Pa. (B)
 Holmes Corp., The, P. O. Box 42, Glenshaw, Pa. (B)
 Hospital Constrs., Inc., 7025 Campania Ave., Pittsburgh 6, Pa. (B)
 Landau Bros. Bldg. Co., 125 1st Ave., Pitts- burg 22, Pa. (B)
 Martin & Nettrour Contr. Co., 803-810 Farm- ers Bank Bldg., 5th Ave., & Wood St., Pittsburgh 22, Pa. (B)
 Martin, O. H., Co., 18 1st St., Sharpsburg, Pittsburgh 15, Pa. (B)
 Mellon-Stuart Co., 210 E. Park Way, Pitts- burg 12, Pa. (B)
 Minnotte Bros. Co., Riverton St. & Baldwin Rd., Hays, Pittsburgh, Pa. (B)
 Navarro Corp., 6219 Broad St., Pittsburgh 6, Pa. (B)
 Ragner-Benson, Inc., 801 Investment Bldg., Pittsburgh 22, Pa. (B)
 Riffle, David T., Inc., 1006 Forbes St., Pitts- burg 19, Pa. (B)
 Robison Constr. Co., 419 Melwood St., Pitts- burg 13, Pa. (B)
 Seaman Co., 5145 Liberty Ave., Pittsburgh 24, Pa. (B)
 Siesel Constr. Co., 204 Flannery Bldg., Pitts- burg 13, Pa. (B)
 Starrett Brothers and Eken, Inc., 333 Du- quesne Way, Pittsburgh 22, Pa. (B)
 Trimble Co., The, 1719 Pennsylvania Ave., Pittsburgh 33, Pa. (B)
 Turner Construction Co., 405 Oliver Ave., Pittsburgh 19, Pa. (B)
 Uhl Constr. Co., Box 308, Allison Park, Pa. (B)
 Unkefer Bros. Constr. Co., 516 Bessemer Bldg., Pittsburgh 22, Pa. (B)
 Wehr, Edw. A., Highland Bldg., Pittsburgh 6, Pa. (B)
 Wilcox, Ira C., Co., 6415 Hamilton Ave., Pittsburgh 6, Pa. (B)
 Winner, B. L., Co., Inc., 2440 Maple Ave., Pittsburgh 14, Pa. (B)

(c) CONSTRUCTORS ASSOCIATION OF WESTERN PENNSYLVANIA

President—Frank O. Patterson, Patter- son Constr. Co., Monongahela, Pa.
Executive Secretary—Thurman C. Tejan, 805 Columbia Bldg., Pittsburgh 22, Pa.
Telephone: Court 1-2888

Allegheny Asphalt & Paving Co., 8th & Bing- ham Sts., Pittsburgh 3, Pa. (H)
 Allen, H. R., Beaver, Pa. (H)
 Altoona Constr. Corp., 516 Hart St., Holl- daysburg, Pa. (H)
 Baltes, A. J., Inc., 181 Benedict Ave., Nor- walk, Ohio (H)
 Bates & Rogers Construction Corporation, 600 W. Jackson Blvd., Chicago 6, Ill. (B-Hvy-RR)
 Beaver Asphalt Paving & Constr. Co., New Brighton, Pa. (H)
 Becksmith Engr. Co., 326 Bakewell Bldg., 417 Grant St., Pittsburgh 19, Pa. (H)

Ben Constr. Co., 101 Hargrove St., Pitts- burg 26, Pa. (H)
 Black Top Paving Co., Oakland Ave., Wash- ington, Pa. (H)
 Booth & Flinn Co., 1942 Forbes St., Pitts- burg 19, Pa. (H-Hvy)
 Boquet Constr. Co., Inc., 4662 Old Boston Rd., Pittsburgh 10, Pa. (H)
 Boyer, John E., Washington, Pa. (H)
 Brayman Constr. Co., 67 N. Harrison Ave., Pittsburgh 2, Pa. (Hvy)
 Brotemarkle, S. T., Constr. Co., P. O. Box 393, Cumberland, Md. (H)
 Bryan, Frank, Inc., 1623 Chartiers Ave., Mc- Kees Rocks, Pa. (H-Hvy)
 Burrell Constr. & Supply Co., 1 5th St., New Kensington, Pa. (H)
 Cafardi, A. R., 116 Craft Ave., Pittsburgh 13, Pa. (Hvy)
 Casey, John F., Co., P. O. Box 1888, Pitts- burg 30, Pa. (Hvy-RR)
 Coffeen, A. R., Co., Allison Park, Pa. (H)
 Columbia Contr. Co., 1007 McCartney St., Pittsburgh, Pa. (H)
 Cornish Constr. Co., 214 Alexander Ave., Greensburg, Pa. (Hvy)
 Corol Constr. Corp., 509 N. Homewood Ave., Pittsburgh 8, Pa. (H)
 Craft Constr. Co., 215 Lothrop St., Pittsburgh, Pa. (H)
 DeFelicis, L. G., & Son, Inc., Nettleton Ave., North Haven, Conn. (H-Hvy)
 Dinardo, Inc., 331 Bouquet St., Oakland Sta., Pittsburgh 13, Pa. (H-Hvy)
 Diulus Constr. Co., Inc., 4610 Barlind Dr., Mt. Lebanon, Pittsburgh 10, Pa. (H)
 Donatelli, Frank, Co., Inc., Broad & Euclid Aves., Pittsburgh 6, Pa. (H-Hvy)
 Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa. (Hvy)
 Duffy Constr. Corp., 540 Terminal Bldg., Cleveland, Ohio (Hvy)
 Eichleay Corp., 33 S. 19th St., Pittsburgh 3, Pa. (Hvy)
 Eidemiller, Adam, Greensburg, Pa. (H-Hvy)
 Ferguson & Edmondson Co., 412 Keystone Bldg., Pittsburgh 22, Pa. (H-Hvy-RR)
 Freeland Constr. Co., 402 Keystone Bldg., Pittsburgh 22, Pa. (H-Hvy)
 Galiardi Constr. & Supply Co., 801 2d Na- tional Bank Bldg., Connellsville, Pa. (H)
 Groves, S. J., & Sons Co., Rt. 35 at Port Reading RR, P. O. Box 485, Wood- bridge, N. J. (H-Hvy)
 Harrison Construction Company, 1101 West- ern Ave., Pittsburgh 33, Pa. (H-Hvy)
 Hazelwood, Geo. F., Co., Inc., The, 36 How- ard St., Cumberland, Md. (H)
 Holderman, V. N., & Sons, Inc., 890 E. Oak- land Park Ave., Columbus 11, Ohio (H)
 Holmes Constr. Co., The, Wooster, Ohio (Hvy)
 Hunkin-Conkey Constr. Co., The, 1740 E. 12th St., Cleveland 14, Ohio (H-Hvy)
 Indyk Constr. Co., Inc., Box 215, Houston, Pa. (Hvy)
 Istock, Nick, 704 Ann St., Aliquippa, Pa. (Hvy)
 Jacobsen, Carl J., 1840 Cecil St., Sharpsburg, Pa. (Hvy)
 Jacobson, Bert A., Co., Inc., 2006 Law & Fi- nance Bldg., Pittsburgh 19, Pa. (Hvy)
 Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York 6, N. Y. (H-Hvy)

PENNSYLVANIA—Continued

Johnson, W. L., Construction Co., 209 E. High St., Hicksville, Ohio (H-Hvy-RR)
 Kelley & Meyer Co., The, 1211 Gibson St., Youngstown, Ohio (H)
 Kline & Schmidt, Monaca, Pa. (H)
 Lamb & Stabler, Box 442, Midway, Pa. (H)
 Langenfelder, C. J., & Son, Inc., 8427 Pulaski Hwy., Baltimore 24, Md. (H)
 M & S Constr. Co., Inc., 1558 Electric Ave., East Pittsburgh, Pa. (H)
 Macdonald Engr. Co., 188 W. Randolph St., Chicago 1, Ill. (Hvy)
 Mannella, Frank, Constr. Co., 7003 Chaucer St., Pittsburgh 8, Pa. (Hvy)
 Mario Constr. Co., Inc., 15 Boundary St., Pittsburgh 13, Pa. (H)
 Marion Coal & Supply Co., Jones Law Bldg., Pittsburgh, Pa. (H)
 Martin, O. H., Co., 18 1st St., Sharpsburg, Pittsburgh 15, Pa. (Hvy)
 Mashuda, Frank, Co., 5556 W. Roosevelt Dr., Milwaukee 10, Wis. (H)
 McCrady Constr. Co., 304 Ross St., Pittsburgh 19, Pa. (H-Hvy)
 McQuade, Jas. H., & Sons Co., 417 Grant St., Pittsburgh 19, Pa. (Hvy)
 McShane Contr. Co., 1007 McCartney St., Pittsburgh, Pa. (Hvy)
 Medis, Paul L., 200 Saw Mill Run Blvd., Pittsburgh 26, Pa. (H)
 Myers-Johnson Co., 28 E. Market St., Lewis- town, Pa. (H)
 Myers, Ralph, Contr. Corp., Salem, Ind. (H)
 Nardulli & Sons Co., Inc., 947 Butler St., Pittsburgh 23, Pa. (H)
 O'Herron, M. Co., 4002 Lorigan St., Pitts- burgh 24, Pa. (H)
 Palombo, D., Sons, 1600 Washington Rd., Pittsburgh 16, Pa. (H)
 Patterson Constr. Co., Monongahela, Pa. (H- Hvy)
 Perini, B., & Sons, Inc., P. O. Box 8157, Squirrel Hill Sta., Pittsburgh, Pa. (H- Hvy)
 Pittsburgh-Des Moines Steel Co., Neville Is- land, Pittsburgh, Pa. (Hvy)
 Plummer, J. Lee, Inc., Beaver Rd., Sewickley, Pa. (H)
 Porterfield-Binger Co., Youngstown, Ohio (H)
 Ragner Bros., Grant Bldg., Pittsburgh 19, Pa. (Hvy)
 Reason, Edw., 3031 W. Liberty Ave., Pitts- burgh 16, Pa. (Hvy)
 Rider Constr. Co., Charleroi, Pa. (H)
 Rochester Coal-Trucking & Constr. Co., Box 270, Rochester, Pa. (H)
 Rupp Bros., Inc., Box 81, Kittanning, Pa. (H)
 Sanctis Constr., Inc., 410 Marlowe St., Pitts- burgh 20, Pa. (H-Hvy)
 Trimble Co., The, 1719 Pennsylvania Ave., Pittsburgh 33, Pa. (Hvy-RR)
 Vang, Geo., Inc., Grant Bldg., Pittsburgh 19, Pa. (Hvy)
 Wandel, Bruce B., 1615 Bidwell St., Pitts- burgh, Pa. (Hvy)
 Westcott, Louis S., Babcock Blvd. at Oak Glenn Rd., Pittsburgh 9, Pa. (H)
 Wilkins Constr. Co., 2713 Sarah St., Pitts- burgh, Pa. (Hvy)

Winkelman, D. W., Co., Inc., 205 Harrison St., Syracuse 2, N. Y. (H-Hvy)
 Yount, R. F., Co., Box 101, Kittanning, Pa. (H)

(d) PHILADELPHIA CHAPTER

President—J. Russell Cullen, Nason & Cullen, 6522 Vine St., Philadelphia 39, Pa.

Secretary—Harry P. Taylor, Suite 210, Architects Bldg., 17th & Sansom Sts., Philadelphia 3, Pa.

Telephone: Rittenhouse 6-4606 & 4607

Bachmann, Geo., Co., 21 N. 30th St., Camden 5, N. J. (B)
 Baker, Wm. D., Co., 1717 Sansom St., Phila- delphia 3, Pa. (B)
 Ballinger, R. C., Co., National Bank of Nar- berth Bldg., Narberth, Pa. (B)
 Baton Constr. Corp., 1717 Sansom St., Phila- delphia 3, Pa. (B)
 Brosz, Paul, & Sons, Inc., 2511 W. Hunting- don St., Philadelphia 32, Pa. (B)
 Campion, F. K., 1905 Spring Garden St., Philadelphia 30, Pa. (B)
 Clearkin, Jas. J., 4450 Leiper St., Philadel- phia 24, Pa. (B)
 Consolidated Constr. Co., 28 Cooper St., Woodbury, N. J. (B)
 Cornell, J. S., & Son, Inc., 1528 Cherry St., Philadelphia 2, Pa. (B)
 Davis, F. B., Sons, 240 N. 16th St., Philadel- phia 2, Pa. (B)
 Day & Zimmermann, Inc., 1700 Sansom St., Philadelphia 3, Pa. (B)
 Durell, E. Clifford, & Son, Inc., 1910 N. Mar- shall St., Philadelphia 22, Pa. (B)
 Eddleman, C. C., 419 Green Lane (Roxbor- ough), Philadelphia 28, Pa. (B)
 English, Frank G., & Sons, 1606 N. Carlisle St., Philadelphia 21, Pa. (B)
 Evans, Geo. H., & Co., 1914 Spring Garden St., Philadelphia 30, Pa. (B)
 Farrell, Jos. R., 4422 Market St., Philadel- phia 4, Pa. (B)
 Fleming Co., 1717 Sansom St., Philadelphia 3, Pa. (B)
 Gill, Harry, Co., 2513 Germantown Ave., Philadelphia 33, Pa. (B)
 Golder Constr. Co., Inc., Market St. National Bank Bldg., Philadelphia 7, Pa. (B)
 Goldman, Perry J., Constr. Co., Lewis Tower Bldg., 15th & Locust Sts., Philadelphia 2, Pa. (B)
 Grau, H. C., Sr., 4019 Sansom St., Philadel- phia 4, Pa. (B)
 Hallahan, John P., Inc., Fuller Bldg., 10 S. 18th St., Philadelphia 3, Pa. (B)
 Haverstick-Borthwick Co., 3416 N. Sydenham St., Philadelphia 40, Pa. (B)
 Hughes-Foulkrod Co., 1505 Race St., Phila- delphia 2, Pa. (B)
 Hunt, David M., Otis Bldg., 112 S. 16th St., Philadelphia 2, Pa. (B)
 Hydrocarbon Research, Inc., 115 Broadway, New York 6, N. Y. (B-Hvy)
 Irwin & Leighton, 1505 Race St., Philadel- phia 2, Pa. (B)
 Keefe, E. H., & Son, 1321 Rodman St., Phila- delphia 47, Pa. (B)
 Kidde, Walter, Constrs., Inc., 140 Cedar St., New York 6, N. Y. (B)

Kuljian Corp., 1200 N. Broad St., Philadel- phia 21, Pa. (B)
 Lamb, Robt. E., & Son, Inc., 3429 W. Indi- ana Ave., Philadelphia 32, Pa. (B)
 Larkin, Frank J., Constr. Co., 1520 Parrish St., Philadelphia 30, Pa. (B)
 Laub Constr. Co., Inc., 1518 Walnut St., Philadelphia 2, Pa. (B)
 Lauter Constr. Co., 112 S. 16th St., Philadel- phia 2, Pa. (B)
 Linker, Wm., Co., Inc., 2036 Arch St., Phila- delphia 3, Pa. (B)
 Lotz, Wm. F., 1000 Orthodox St., Philadelphia 24, Pa. (B)
 M. & L. Constr. Co., 108 S. 40th St., Phila- delphia 4, Pa. (B)
 Master Masons Constr. Co., 1619 W. Thomp- son St., Philadelphia 21, Pa. (B)
 McQuade, John S., Jr., 1318-20-22 Parrish St., Philadelphia 23, Pa. (B)
 McShain, Inc., 17th & Spring Garden, Phila- delphia, Pa. (B)
 Murphy-McDonnell Co., 104 69th St. Theatre Bldg., Upper Darby, Pa. (B)
 Murphy-Quigley & Co., 1518 Sansom St., Philadelphia 2, Pa. (B)
 Nason & Cullen, 6522 Vine St., Philadel- phia 39, Pa. (B)
 Neiman, H. B., Co., 1127 Western Saving Fund Bldg., Philadelphia 7, Pa. (B)
 Rafferty, John E., Jr., Inc., Liberty Trust Bldg., Philadelphia 7, Pa. (B)
 Reiff, Daniel L., 15 E. Airy St., Norristown, Pa. (B)
 Robbins, John A., Co., Inc., 10 S. 18th St., Philadelphia 3, Pa. (B)
 Rohleder, Chas. F., 600 Schuylkill Ave., Philadelphia 46, Pa. (B)
 Rust, Henry R., Inc., 19 S. 8th St., Philadel- phia 6, Pa. (B)
 Sauter, Godfrey, 1505 Race St., Philadelphia 2, Pa. (B)
 Schwertner, Chas. H., & Son, 1220 Hamilton St., Philadelphia 23, Pa. (B)
 Shaffer, Leonard, Co., 207 S. 24th St., Phila- delphia 3, Pa. (B)
 Shandles, H. M., 617 Pine St., Philadelphia 6, Pa. (B)
 Shoemaker, R. M., Co., 1619 Sansom St., Philadelphia, Pa. (B)
 Smith & Buzby, 269 S. Van Pelt St., Phila- delphia 3, Pa. (B)
 Smolark, J. A., Ft. Washington, Pa. (B)
 Steele, Jack S., Constr. Co., 1300 W. Hunt- ing Park Ave., Philadelphia 40 Pa. (B)
 Steele, Pownall & Gebhardt, Rm. 426, 1505 Race St., Philadelphia 2, Pa. (B)
 Stofflet & Tillotson, 2043 Eastburn Ave., Phila- delphia 38, Pa. (B)
 Stoud, Wm. J., 1925 Ashley Rd., Phila- delphia 38, Pa. (B)
 Sturm & Co., Inc., 4531-33 N. Front St., Philadelphia 40, Pa. (B)
 Taggart, Henry M., Inc., 1924 Chestnut St., Philadelphia 3, Pa. (B)
 Towne, Constr. Co., 1505 Race St., Philadel- phia 2, Pa. (B)
 Townsend & Elfreth Co., 1601 Chestnut St., Philadelphia 3, Pa. (B)
 Turner Construction Co., 1500 Walnut St., Philadelphia 2, Pa. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

PENNSYLVANIA—Continued

United Bldg. Constr. Co., 845 N. 19th St., Philadelphia 30, Pa. (B)
 Unkefer Bros. Constr. Co., Otis Bldg., Philadelphia 2, Pa. (B)
 Wallace, Wm., 337 S. Camac St., Philadelphia 7, Pa. (B)
 Wambold, Edgar M., 201 N. Broad St., Philadelphia 7, Pa. (B)
 Wark & Co., 1920 Sansom St., Philadelphia 3, Pa. (B)
 White, Barclay & Co., Inc., 22 N. 36th St., Philadelphia 4, Pa. (B)
 Wigton-Abbott Corporation, 1225 South Ave., Plainfield, N. J. (B)
 Wilson, Frank H., 125 Coulter Bldg., Ardmore, Pa. (B)
 Winingers & Selby, Inc., 10 Rockefeller Plaza, New York 20, N. Y. (B)
 Wintz, Frank I., & Son, 1618 N. 27th St., Philadelphia 21, Pa. (B)
 Zellfelder, Albert, & Co., Inc., 1618 Wood St., Philadelphia 3, Pa. (B)

38. RHODE ISLAND**(a) RHODE ISLAND CHAPTER**

President—Frederick E. Bowerman, Bowerman Bros., 70 Bath St., Providence 8, R. I.
Secretary—Prescott W. N. Gustafson, Frank N. Gustafson & Sons, Inc., 251 Pitman St., Providence 6, R. I.
 Ahlborg, O., & Sons, Inc., 48 Molter St., Cranston, R. I. (B)
 Argentieri Constr. Co., 54 Custom House St., Providence 3, R. I. (B)
 Ayers-Hagan-Booth, Inc., 35 Westminster St., Providence 3, R. I. (B)
 Beals, A. C., Co., 63 Bassett St., Providence 3, R. I. (B)
 Bowerman Bros., 70 Bath St., Providence 8, R. I. (B)
 Brien Bldg. Co., Inc., 144 Court Sq., Woonsocket, R. I. (B)
 Central Engr. & Constr. Co., 155 Main St., Pawtucket, R. I. (B-Hvy)
 Coleman Constr. Co., Inc., 49 Westminster St., Providence 3, R. I. (B)
 Collins, H. V., 7 Dyer St., Providence 3, R. I. (B)
 Dimeo Constr. Co., 75 Westminster St., Providence 3, R. I. (B)
 Flynn, Jos. P., 26 Custom House St., Providence 7, R. I. (B)
 Gilbane Bldg. Co., 90 Calverly St., Providence, R. I. (B-Hvy)
 Gustafson, Frank N., & Sons, Inc., 251 Pitman St., Providence 6, R. I. (B)
 Hope Bldg. Co., Inc., Box 358, Providence 3, R. I. (B)
 Marshall, J. L., & Sons, Inc., 560 York Ave., Pawtucket, R. I. (B)
 Molony & Rubien Constr. Co., 66 Wickenden St., Providence, R. I. (B)
 Purington, O. D., Co., Inc., 171 Westminster St., Providence, R. I. (B)
 Rowley Constr. Co., 260 Central Ave., Pawtucket, R. I. (B)
 Sinclair, John M., 44 Burlington St., Providence 6, R. I. (B)
 Smiley, A. F., Constr., Co., 115 Trenton St., Pawtucket, R. I. (B)

Soule, Henry M., Co., 421 Walcott St., Pawtucket, R. I. (B)
 Turgeon, E., Constr. Co., Inc., 42 Weybosset St., Providence 3, R. I. (B)

39. SOUTH CAROLINA

See Carolina Branch (page 322)

40. SOUTH DAKOTA**(a) HIGHWAY CONSTRUCTION INDUSTRY OF SOUTH DAKOTA, INC.**

President—J. H. Beckman, J. H. Beckman Constr. Co., 1620 Dana Dr., Sioux Falls, S. Dak.
Secretary—W. S. Hannan, Sr., Hyde Block, P. O. Box 467, Pierre, S. Dak.
Telephone: 2994

Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis 6, Minn. (H)
 Bartholow, W. E., & Son Constr. Co., 8 Masonic Bldg., Huron, S. Dak. (H)
 Beckman, J. H., Constr. Co., 1620 Dana Dr., Sioux Falls, S. Dak. (H)
 Bonesteel & Hyde, Box 132, Pierre, S. Dak. (H)
 Bradbury, P. A., Constr. Co., Box 636, Aberdeen, S. Dak. (H)
 Central Constr. Co., W. 12th St., P. O. Box 252, Sioux Falls, S. Dak. (H)
 Chase Constr. Co., Box 9, Rapid City, S. Dak. (H)
 Christle, Richard H., Box 66, Wasta, S. Dak. (H)
 Craig, Jay W., Co., 1814 N. E. California St., Minneapolis 13, Minn. (H)
 Creager Bros. Constr. Co., 606 E. Dakota Ave., Pierre, S. Dak. (H)
 Cummins, F. I., Constr. Co., 2101 S. Norton Ave., Sioux Falls, S. Dak. (H-Hvy)
 Emme, H. F., Constr. Co., Box 1311, Rapid City, S. Dak. (H)
 England & Roth Constr. Co., 712 St. Cloud St., Rapid City, S. Dak. (H-Hvy)
 Gustafson, Dave, & Co., Inc., 502 E. 6th St., Sioux Falls, S. Dak. (H)
 Gustafson, S. E., Constr. Co., W. 12th St., Box 453, Sioux Falls, S. Dak. (H)
 Haggart Constr. Co., The, Box 1310, Fargo, N. Dak. (H)
 Harris Constr. Co., Box 348, Faulkton, S. Dak. (H-RR)
 Healy, J. L., Constr. Co., 301 Western Surety Bldg., Sioux Falls, S. Dak. (H)
 Inland Constr. Co., P. O. Box 790, Rapid City, S. Dak. (H-Hvy-RR)
 Johnson, H. W., Dakota Ave., So., P. O. Box 218, South Sioux City, Nebr. (H)
 Kiewit, Peter, Sons' Co., North Western Warehouse Bldg., 413 6th St., Rapid City, S. Dak. (B-H-Hvy-RR)
 Kost, Leo, 109 N. Adams St., Pierre, S. Dak. (H)
 Lien, C. H., Constr. Co., Inc., Box 1807, Rapid City, S. Dak. (H)
 Lindekugel, G. H., & Sons, Mitchell Air Base, Mitchell, S. Dak. (H)
 McCree & Co., 918 New York Bldg., St. Paul 1, Minn. (H)
 Moore Constr. Co., 911 Clark St., Rapid City, S. Dak. (H)

Noel, W. H., Co., Box 1390, Jamestown, N. Dak. (H)
 Northern Improvement Co., 633 1st Ave., No., Box 489, Fargo, N. Dak. (H-Hvy)
 Northwestern Engr. Co., 1311 St. Joe St., Box 1392, Rapid City, S. Dak. (H-Hvy)
 Oberg, Steve R., Constr. Co., 1224 E. Rice St., Sioux Falls, S. Dak. (H)
 Parker, W. J., Constr. Co., 614 Standard Oil Bldg., Omaha 2, Nebr. (H)
 Pasco Constr. Co., 1707 S. 1st Ave., Sioux Falls, S. Dak. (H)
 Rand Constr. Co., Box 1529, Rapid City, S. Dak. (B-H)
 Richardson, Lou, Box 513, Miles City, Mont. (H)
 Rounds Constr. Co., 1017 Fulton St., Rapid City, S. Dak. (H)
 Schimkat, Art, Constr., P. O. Box 61, Onida, S. Dak. (H)
 Schnuerle, A. W., Riverside Rd., Box 634, Aberdeen, S. Dak. (H)
 Sorenson, J. C., Box 156, Trent, S. Dak. (H)
 Stapp, Floyd D., Constr. Co., Box 1211, Rapid City, S. Dak. (H)
 Stump & Stradinger, P. O. Box 448, Moberly, S. Dak. (H)
 Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H)
 Sweetman Constr. Co., 230 E. 8th St., Sioux Falls, S. Dak. (H-Hvy)
 Tennesos Constr. Co., 1205 S. 9th St., Box 1363, Fargo, N. Dak. (H)
 Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa (H-Hvy-RR)

Local Members

Brezina Construction Company, Inc., P. O. Box 743, Rapid City, S. Dak. (B)
 Carlson, Henry, Company, Sioux Falls, S. Dak. (B)
 Kyburz Construction Company, 224 Midwest Bldg., Aberdeen, S. Dak. (B)
 Sioux Falls Construction Company, 800-820 S. 7th Ave., Sioux Falls, S. Dak. (B-Hvy-RR)

41. TENNESSEE**MISSISSIPPI VALLEY FLOOD CONTROL BRANCH**

See Mississippi (page 314)

(a) CHATTANOOGA CHAPTER

President—John Martin, Sr., John Martin Co., Inc., 610 W. Manning St., Chattanooga, Tenn.
Counsel—Jere T. Tipton, 1033 Volunteer State Life Bldg., Chattanooga, Tenn.
Telephone: 7-1191
 Allen, Robt. L., 406 Forrest Ave., Chattanooga, Tenn. (B-H)
 Brown Bros., P. O. Box 946, Chattanooga 1, Tenn. (H-Hvy)
 Brown, Dave L., 1800 Central Ave., Chattanooga, Tenn. (H-Hvy)
 Collins & Hobbs, 4013 Tennessee Ave., Chattanooga, Tenn. (B)
 Davis, O. B., Constr. Co., 641 N. Market St., Chattanooga, Tenn. (B)
 Hamby Constr. Co., Inc., E. Washington St., Box 426, Athens, Tenn. (B)

TENNESSEE—Continued

Lindsey, J. W. B., Co., 401 N. Market St., Chattanooga, Tenn. (B)
 Martin, John, Co., Inc., 610 W. Manning St., Chattanooga, Tenn. (B)
 Parks, T. U., Co., 1700 Kirby Ave., Chattanooga, Tenn. (B)
 Payne & Harris, 1077 Duncan Ave., Chattanooga, Tenn. (B-H-Hvy)
 Pioneer Constr. Co., 1300 Oak St., Chattanooga, Tenn. (Hvy)
 Stein Constr. Co., 1077 Duncan Ave., Chattanooga, Tenn. (Hvy)
 Verhey Constr. Co., 207 N. Holly St., P. O. Box 306, Chattanooga, Tenn. (B)
 Warlick, L. A., Contr. Co., 747 E. 11th St., Chattanooga, Tenn. (B)
 Wilson, Mark K., Co., 43 Chamberlain Bldg., Chattanooga, Tenn. (B-H)
 Wise, E. D., 1077 Duncan Ave., Chattanooga, Tenn. (H-Hvy)

(b) KNOXVILLE CHAPTER

President—J. E. Willard, Johnson & Willard, P. O. Box 174, Knoxville 2, Tenn.
Secretary & Treasurer—C. M. Emory, Jr., Emory & Richards, Central & Quincy, Knoxville 17, Tenn.
 Dougherty & Waters, P. O. Box 97, Knoxville 1, Tenn. (B)
 Dunn, J. M., & Son, 245 Broadway, Knoxville 17, Tenn. (B)
 Emory & Richards, Central & Quincy, Knoxville 17, Tenn. (B)
 Hicks, Fred E., Constr. Co., 205 Flatiron Bldg., Knoxville 17, Tenn. (B)
 Johnson & Willard, P. O. Box 174, Knoxville 2, Tenn. (B)
 McMurray, A. R., Constr. Co., 1418 Western Ave., Knoxville, Tenn. (B)
 Nicholson, V. L., Co., Box 2336, Knoxville 12, Tenn. (B)
 Roehl Constr. Co., 625 Atchley St., Knoxville, Tenn. (B)
 Weiss, R. L., & Son, W. Highland Dr., Fountain City, Tenn. (B)

(c) MEMPHIS CHAPTER

President—Geo. D. Wible, S & W Constr. Co., 2630 Midland, Memphis, Tenn.
Secretary-Manager—W. W. MacLaughlin, Jr., 320 S. Dudley, Memphis, Tenn.
Telephone: 32-1721
 Alamo Constr. Co., Alamo, Tenn. (B-H)
 Bryson & Ward, 2419 Chelsea Ave., Memphis 8, Tenn. (B)
 Canfield, Badgett & Scarbrough Co., 1850 Union Ave., Apt. #2, Memphis 3, Tenn. (B)
 Clark & Fay, 4920 Poplar Ave., Memphis, Tenn. (B)
 Consolidated Contrs., 1489 Thomas St., P. O. Box 237, Memphis 1, Tenn. (B-H-Hvy)
 Creson, R. F., & Co., 741 S. Cox St., Memphis 4, Tenn. (B)
 Crouch, Robt. C., & Co., Sterick Bldg., Memphis 4, Tenn. (B)

Dougherty-Liddell Constr. Co., P. O. Box 2839, DeSoto Sta., Memphis 2, Tenn. (B-Hvy)
 Dunn-Baskin & Dunn, 166 Monroe Ave., Memphis, Tenn. (B)
 Fulghum, Geo. A., & Co., 1045 Galloway, Memphis, Tenn. (B)
 Giem, Seth E., & Assos., 801 Roland, Memphis 3, Tenn. (B)
 Howell Constr. Co., 1503 Union Ave., Memphis, Tenn. (B)
 Irwin, Robt. L., 166 Monroe Ave., Memphis, Tenn. (B)
 Jameson, P. W., Constr. Co., 611 N. Holmes Ave., Memphis, Tenn. (B)
 L & M Constr. Co., P. O. Box 78, Memphis, Tenn. (B-H)
 Lee Constr. Co., 402 Goodwyn Institute, Memphis, Tenn. (B)
 Lee, Frank H., & Co., 217 Bond St., West Memphis, Ark. (B)
 Madewell Constr. Co., 312 Baltimore Bldg., Memphis, Tenn. (B)
 Maury, Sam P., Constr. Co., P. O. Box 231, Memphis 1, Tenn. (B)
 Maury & Wedaman, 2489 Parkway Pl., Memphis, Tenn. (B)
 McGrory, C. E., Constr. Co., 130 Neil St., Memphis, Tenn. (B)
 McGuire, H. A., Constr. Co., 413 Monroe Ave., Memphis 3, Tenn. (B)
 McNeese Constr. Co., 23 S. Pauline, Memphis, Tenn. (B)
 Meers, E. W. G., Constr. Co., 166 Monroe Ave., Memphis 3, Tenn. (B)
 Mississippi Valley Engr. & Constr. Co., 787 S. Willett, Memphis, Tenn. (B-Hvy)
 Mock, P. C., Constr. Co., 725 Scott Ave., Memphis, Tenn. (B)
 Morgan, B. A., 2197 Central Ave., Memphis, Tenn. (B)
 O'Brien, J. M., & Co., 283 Scott, Memphis, Tenn. (B)
 Powell, L. D., Constr. Co., 728-29 M & M Bldg., Memphis 3, Tenn. (B-Hvy)
 S & W Constr. Co., 2630 Midland, Memphis, Tenn. (B-H-Hvy)
 Sharpe, W. L., Contr. Co., 2074 York Ave., Memphis, Tenn. (H-Hvy-RR)
 Tri-State Constr. Co., 1303 Three Sisters Bldg., Memphis 3, Tenn. (B)
 Turner Constr. Co., 1020 Columbian Mutual Tower, Memphis, Tenn. (B)
 Tvedt, L. A., 10 N. Main Bldg., Memphis, Tenn. (B-H-Hvy)
 United Constr. Co., 727 N. Parkway, Memphis, Tenn. (B)
 Wessell Constr. Co., 388 N. Front St., Memphis 7, Tenn. (B)
 Young, Fred, 166 Monroe Ave., Memphis, Tenn. (B)

(d) NASHVILLE CHAPTER

President—Edward S. Sumner, Sumner Constr. Co., 912 8th Ave., So., Nashville 3, Tenn.
Secretary—R. L. Alexander, 624 Stahlman Bldg., Nashville 3, Tenn.
Telephone: 6-1177
 Boone Contr. Co., 540 3d National Bank Bldg., Nashville 3, Tenn. (B)
 Foster & Creighton Co., American National Bank Bldg., Nashville 3, Tenn. (B-H)

Hailey, W. L., & Co., 314 42d Ave., No., Nashville 3, Tenn. (B-H-Hvy-RR)
 Kelly, J. A., Co., 1419 Church St., Nashville 3, Tenn. (B)
 Regen, J. B., 2221 Bransford Ave., Nashville 4, Tenn. (B)
 Rock City Constr. Co., 135 4th Ave., No., Nashville 3, Tenn. (B)
 Rule, C. F., Constr. Co., 217 13th Ave., No., Nashville, Tenn. (B)
 Scroggin, J. C., Constr. Co., Woodcrest Ave., Nashville, Tenn. (B)
 Smith, W. R., & Son, P. O. Box 840, Nashville, Tenn. (B)
 Sumner Constr. Co., 912 8th Ave., So., Nashville 3, Tenn. (B)
 Wright, Fred., Constr. Co., 1322 Nashville Trust Bldg., Nashville 3, Tenn. (B)

(e) TRI-CITIES CHAPTER

President—Blair Shannon, Jas. E. Green, P. O. Box 427, Johnson City, Tenn.
Secretary—J. M. Mullins, Cassel Bros., 908 Bristol Hwy., Kingsport, Tenn.
 Alley Constr. Co., Inc., Union Trust Bldg., Bristol, Tenn. (B-H)
 Armstrong Constr. Co., 151 Shelby St., Kingsport, Tenn. (B)
 Bays Mountain Constr. Co., Box 511, Kingsport, Tenn. (B-Hvy)
 Burleson Constr. Co., 812 W. Walnut St., P. O. Box 132, Johnson City, Tenn. (B)
 Cassel Bros., 908 Bristol Hwy., Kingsport, Tenn. (B)
 Click Constr. Co., 118 Elk Ave., Elizabethton, Tenn. (B)
 Green, Jas. E., P. O. Box 427, Johnson City, Tenn. (B)
 Harvey, J. E., 914 E. 8th Ave., Johnson City, Tenn. (B)
 Henninger, Claude, Co., P. O. Box 79, Bristol, Tenn. (B)
 Johnson & Willard, 422 Front St., P. O. Box 174, Knoxville, Tenn. (B)
 Kingsolver, Arthur E., P. O. Box 894, Bristol, Va. (B)
 Myers, J. E., 218 E. Charlemont St., Kingsport, Tenn. (B)
 Rentenbach & Wright, Inc., P. O. Box 411, 217 E. Sullivan St., Kingsport, Tenn. (B)
 Sproles, W. R., Constr. Co., Clay St., Kingsport, Tenn. (B)
 Steadman Constr. Co., 147 Commerce St., Kingsport, Tenn. (B)
 Taylor Constr. Co., Inc., P. O. Box 237, Johnson City, Tenn. (H-Hvy)
 Wayne Constr. Co., Inc., Rt. 4, Greeneville Hwy., Kingsport, Tenn. (B)

42. TEXAS

(a) DALLAS CHAPTER

President—Leo P. Morgan, J. E. Morgan & Sons, P. O. Box 6029, Dallas, Texas
Managing Director—Julian Capers, Jr., 207 Thomas Bldg., Dallas 2, Texas
Telephone: Randolph 8218
 Beck, Henry C., Co., 607 1st National Bank Bldg., Dallas 2, Texas (B)
 Bennett, Henry C., Co., 1315 Cadiz St., Dallas, Texas (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

Bock Constr. Co., Inc., 2630 Ferris St., P. O. Box 9097, Dallas 15, Texas (B)
 Boyd, J. O., Constr. Co., 2401 Pittman Ave., Box 1343, Dallas, Texas (B)
 Brennan, Thos. P., Inc., 2231 Butler St., Dallas, Texas (B)
 Buckner & Pittman, 3121 N. Harwood St., P. O. Box 923, Dallas, Texas (B)
 Busboom & Rauh, 6910 Forest Park Rd., Dallas 9, Texas (B)
 Carpenter Bros., 1335 Plowman, Dallas 8, Texas (B)
 Cowdin Bros., 411 S. Haskell Ave., Dallas 1, Texas (B)
 Dolph Constr. Co., Inc., 3901 Elm St., Dallas 1, Texas (B)
 Dyer, Hal C., Lone Star Gas Bldg., Jackson St. Unit, Dallas 1, Texas (B)
 Eckert-Fair Constr. Co., 1307 National City Bank Bldg., Dallas 1, Texas (B)
 Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston 1, Texas (B-H-Hvy-RR)
 Fuess, C. A., & Co., 30½ Highland Park Shopping Village, Dallas 5, Texas (B)
 Hickey & Co., 204 Commerce Bldg., Dallas 2, Texas (B)
 Inge-Hayman Constr. Co., Inc., 2115 Butler St., Dallas, Texas (B)
 Inwood Constr. Co., 5151 Northwest Hwy., Dallas, Texas (B)
 Jones, J. Lawrence, 406 W. Clarendon Dr., Dallas 8, Texas (B)
 McKee, Robt. E., Box 2848, Dallas 1, Texas (B)
 Meers Constr. Co., 312 Great National Life Bldg., Dallas 1, Texas (B)
 Miller & Norton, 4415½ Belmont, P. O. Box 4667, Dallas 6, Texas (B)
 Montgomery, P. O'B., P. O. Box 923, Dallas, Texas (B)
 Morgan, J. E., & Sons, P. O. Box 6029, Dallas, Texas (B)
 Munn, Chas. S., 5319 Junius St., P. O. Box 9566, Dallas 14, Texas (B)
 O'Rourke Constr. Co., 1001 W. Commerce, P. O. Box 5384, Dallas 2, Texas (B)
 Peterson Constr. Co., P. O. Box 474, Dallas, Texas (B)
 Ransdell Constr. Co., 1014 National City Bank Bldg., Dallas, Texas (B-Hvy)
 Rife, A. J., Constr. Co., 2608 Inwood Rd., Dallas, Texas (B)
 Roland Constr. Co., 4425 Greenville Ave., Dallas 6, Texas (B)
 Stewart, James, & Co., Inc., 800 Employers Insurance Bldg., Dallas 2, Texas (B)
 Sumner, Chas. V., 3408 Rankin St., Dallas 5, Texas (B)
 Vilbig Bros., Inc., P. O. Box 5930, Dallas 2, Texas (B)
 Vivrett & Vivrett, P. O. Box 6286, Dallas, Texas (B)
 Wallace, W. H., Constr. Co., 2244 Hardwick St., Dallas 11, Texas (B)

(b) EL PASO CHAPTER

President—C. H. Leavell, C. H. Leavell & Co., 1900 Wyoming St., El Paso, Texas
Secretary—K. W. Braxton, P. O. Box 3153, Sta. A, El Paso, Texas
 American Constr. Co., 200 N. Copia, P. O. Box 1923, El Paso, Texas (B)
 Bagwell, C. R., 2910 Byron St., El Paso, Texas (B)
 Banes C., Inc., The, 1710 Bassett Ave., P. O. Box 3245, El Paso, Texas (B)
 Leavell, C. H., & Co., 1900 Wyoming St., El Paso, Texas (B)
 Lowman, R. D., 1617 E. Missouri St., El Paso, Texas (B)
 McKee, Robt. E., Gen. Contr., Inc., 1918 Texas St., P. O. Drawer 562, El Paso, Texas (B-H-Hvy-RR)
 Morgan, J. E., & Sons, 210 N. Campbell St., P. O. Box 721, El Paso, Texas (B)
 Normac, Inc., P. O. Box 681, El Paso, Texas (B)
 Ponder, Dan R., Inc., P. O. Box 344, 422 El Paso National Bldg., El Paso, Texas (B)
 Ponsford Bros., P. O. Box 1412, El Paso, Texas (B)
 Prati & Prati, 5660 El Paso Dr., El Paso, Texas (B)

(c) FORT WORTH CHAPTER

President—J. R. Murphy, 2414 Cypress, Fort Worth, Texas
Manager—R. B. Dunbar, 511 Neil P. Anderson Bldg., Fort Worth, Texas
Telephone: EDison-7688
 Adams, B. B., 716 1st National Bank Bldg., Fort Worth 2, Texas (B)
 Butcher & Sweeney, Inc., 806½ Taylor St., Fort Worth 2, Texas (B)
 Byrne, Thos. S., Inc., Fort Worth National Bank Bldg., Fort Worth, Texas (B)
 Cadenhead & Rosser, 4776 Trail Lake Dr., Fort Worth, Texas (B)
 Cadenhead, Thos. H., & Sons, 715 Isbell Rd., Fort Worth, Texas (B)
 Cain & Cain, 406 Majestic Bldg., Fort Worth 2, Texas (B)
 Childs Constr. Co., 1708 Jones St., Fort Worth 3, Texas (B)
 Cloer, E. E., 2825 Crockett St., Fort Worth, Texas (B)
 Duncan, Horace O., 2917 Bryan, Fort Worth, Texas (B)
 Friedman Constr. Co., 1510 W. 10th St., Fort Worth 3, Texas (B)
 Harms, W. C., 1228 W. Shaw St., Fort Worth, Texas (B)
 Lewis & Lewis, P. O. Box 11207, Fort Worth, Texas (B)
 Lytle, W. F., Sr., 4701 Westridge Rd., Fort Worth, Texas (B)
 McCann Constr. Co., 1813 E. Lancaster, P. O. Box 2079, Fort Worth 1, Texas (B)
 McIntire, F. B., Constr. Co., 5611 E. Lancaster, Fort Worth, Texas (B)
 McQuaid Constr. Co., 2912 Stanley, P. O. Box 11066, Fort Worth, Texas (B)
 Mitchell Constr. Co., 508 Neil P. Anderson Bldg., Fort Worth, Texas (B)
 Murphy, J. R., 2414 Cypress, Fort Worth, Texas (B)
 Padgett, John W., & Sons, 4359 W. Vickery, P. O. Box 9277, Fort Worth, Texas (B)

Paschall-Sanders Constr. Co., 3602 Linden, Fort Worth 7, Texas (B)
 Potter, John W., 1401 W. Lancaster, Fort Worth, Texas (B)
 Quisile Constr. Co., 417 T & P Passenger Station Bldg., Fort Worth 2, Texas (B)
 Rambo Constr. Co., 2826 Morton St., Fort Worth, Texas (B)
 Ratcliff & Cornelius Constr. Co., 710 Page St., Fort Worth, Texas (B)
 Rhodes, Jon K., Constr. Co., 3012 Bledsoe, P. O. Box 9116, Fort Worth, Texas (B)
 Roden Constr. Co., 3617 Collinwood, Fort Worth, Texas (B)
 Seward & Shurtleff, 736 Coates Dr., P. O. Box 10308, Fort Worth, Texas (B)
 Smith, Albert L., 1109 Currie, Fort Worth 7, Texas (B)
 Taylor, Jas. T., & Son, Inc., 117 Roberts Cut-Off Rd., P. O. Box 225, Fort Worth, Texas (B)

(d) HOUSTON CHAPTER

President—Fred Fisher, Fisher Constr. Co., P. O. Box 6127, Houston 6, Texas
Executive Secretary—Loy W. Duddleston, 2103 Crawford St., Houston 3, Texas
Telephone: Charter 6051
 Allen, O. L., Co., 1922 Wentworth Ave., Houston 4, Texas (B)
 Andrews-Parker, Inc., P. O. Box 927, Bryan, Texas (B-Hvy)
 Atlantic Constr. Co., P. O. Box 14093, Houston 21, Texas (B)
 Audish, I. G., 1911 Kolfahl St., Houston 23, Texas (B)
 Ball, R. F., Constr. Co., Inc., Box 13097, Houston 19, Texas (B)
 Bate, Thos., & Sons, Inc., 1107 Girard St., Houston 10, Texas (B)
 Baxter Constr. Co., 2718 Cason St., Houston 5, Texas (B)
 Bellows, W. S., Constr. Corp., P. O. Box 2132, 716 N. Everton St., Houston 1, Texas (B-Hvy)
 Benson Co., The, 2212 Waugh Dr., Houston 6, Texas (B)
 Bertelsen Constr. Co., 2411 Bissonnet Ave., Houston 5, Texas (B)
 Blaw-Knox Constr. Co., Chemical Plants Div., P. O. Box 778, Pittsburgh 30, Pa. (B-Hvy)
 Bond, E. Lee, Contr., Inc., 3131 University Blvd., Houston 5, Texas (B)
 Bouille Constr. Co., 4902 Dickson St., Houston 7, Texas (B)
 Brown Constr. Co., 5105 Avenue L, Houston 11, Texas (B)
 Burton & Glithero, 4809 Clinton Dr., Houston 20, Texas (B-H-Hvy)
 Campbell & Kay, P. O. Box 836, Tyler, Texas (B-H)
 Cantrell & McMillan, P. O. Box 7601, Houston 7, Texas (B)
 Carpenter Constr. Co., 5330 Mandell St., Houston 5, Texas (Hvy-RR)
 Chambers Constr. Co., 1954 Temple Dr., Houston 19, Texas (B)
 Copeland Constr. Co., 2265 W. Holcombe Blvd., Houston 5, Texas (B)

TEXAS—Continued

Crossin Constr. Co., 2009 Fannin St., Houston 2, Texas (B)
 Crowder, J. W., & Assocs., P. O. Box 12244, Houston 17, Texas (B)
 Dent, Jas. B., P. O. Box 6275, Houston 6, Texas (B)
 Dow Constr. Co., 3410 Julian St., Houston 9, Texas (B)
 Engbrock Constr. Co., 7634 Thurow St., Houston 17, Texas (B)
 Evans, A. N., P. O. Box 546, Columbus, Texas (B)
 Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston 1, Texas (B-H-Hvy-RR)
 Ferguson, H. K., Co., The, 2620 S. Main St., Houston 2, Texas (B)
 Fisher Constr. Co., P. O. Box 6127, Houston 6, Texas (B)
 Flanders Constr. Co., P. O. Box 12188, Houston 17, Texas (B)
 Fretz Constr. Co., P. O. Box 18094, Houston 23, Texas (B-Hvy)
 Fulton Constr. Co., P. O. Box 13197, Houston 19, Texas (Hvy-RR)
 Gunite Concrete & Constr. Co., 2036 Addison St., Houston 5, Texas (Hvy)
 Harbeson, W. B., Inc., 227 N. Lenox St., Houston 11, Texas (B)
 Hays, A. L., & Son, 3703 Texas Ave., Houston 3, Texas (B)
 Hill, W. D., Constr. Co., Box 6023, Houston 6, Texas (B)
 Holtz, B. W., 1318 Sul Ross, Houston 6, Texas (B)
 Howard Constr. Co., Inc., 442 N. Hutcheson St., Houston 3, Texas (B)
 Howe, T. D., Constr. Co., Inc., 3210 White Oak Dr., P. O. Box 7526, Houston 7, Texas (B)
 Hubbard Constr. Co., Inc., 1507 Delano St., Houston 3, Texas (B)
 Hubbell, J. T., Constr. Co., P. O. Box 14128, Houston 21, Texas (B)
 Hurricane Fence & Constr. Co., 135 Harvard St., Houston 7, Texas (B)
 Kidde, Walter, Constr., Inc., P. O. Box 8044, Houston 4, Texas (B)
 Knutson Constr. Co., 3803 S. Main St., Houston 2, Texas (B)
 Lake Constr. Co., P. O. Box 696, Eagle Lake, Texas (B)
 LeBlanc, Inc., P. O. Box 351, Houston 1, Texas (B)
 Leftwich, Stenis & Harris, 524 N. Hutcheson St., Houston 3, Texas (B)
 Linbeck Constr. Corp., P. O. Box 13007, Houston 19, Texas (B)
 Lockhart, H. L., 203 Carson Ct., Houston 4, Texas (B)
 Manhattan Construction Company of Texas, 2828 Pease Ave., Houston 3, Texas (B)
 Marquette Constr. Co., 6714 Long Dr., Houston 17, Texas (B)
 Marshall Constr. Co., P. O. Box 7538, Houston 7, Texas (B)
 Maxey, Carl E., Constr. Co., P. O. Box 108, Lubbock, Texas (B-Hvy)
 Meyerson, Albert, Co., P. O. Box 14005, Foster Place Sta., Houston 21, Texas (B)
 Moore & Moore, P. O. Box 306, LaPorte, Texas (B)

Mora, Gerald, P. O. Box 2623, Houston 1, Texas (Hvy)
 Nesmith, Robt. E., Inc., 6738 Long Dr., Houston 17, Texas (B)
 Nunez Constr. Co., Inc., P. O. Box 1112, Texas City, Texas (Hvy)
 O'Rourke Constr. Co., 4011 Koehler St., P. O. Box 7557, Houston 7, Texas (B)
 Peck, W. D., & Co., Inc., 304 Citizens State Bank Bldg., Houston 2, Texas (B)
 Plank, J. C., 4700 Nett St., Houston 7, Texas (B)
 Roberts, Jas. A., 2014 Rosedale Ave., Houston 4, Texas (B)
 Schneider Constr. Co., P. O. Box 13157, Houston 19, Texas (B)
 Semands, Martin B., Inc., P. O. Box 979, Conroe, Texas (B)
 Smith, Robt. H., & Co., 1915 Kolfahl St., Houston 23, Texas (B)
 Smith, Wm. A., Constr. Co., P. O. Box 1631, Houston 1, Texas (RR)
 Southwestern Constr. Co., P. O. Box 1204, Houston 1, Texas (B-Hvy)
 Telleson Constr. Co., 1710 Telephone Rd., P. O. Box 2536, Houston 1, Texas (B-Hvy)
 Temple, Arthur, Jr., & Assoc., Inc., Diboll, Texas (B)
 Templeton, C. E., 2309 McClendon St., Houston 25, Texas (B)
 Texas-Gulf Constr. Co., Inc., 2008 S. Wayside Dr., P. O. Box 661, Houston 1, Texas (B-Hvy)
 Vachlavick Constr. Co., P. O. Box 386, El Campo, Texas (B)
 Van Buskirk, Harold, & Co., Inc., 3105 Dixie Dr., P. O. Box 14003, Houston 21, Texas (B)
 Van Cleve Constr. Co., P. O. Box 12176, 5616 Telephone Rd., Houston 17, Texas (B)
 Weber, Herman, Inc., 800 N. Pearl St., Beaumont, Texas (B)
 Williams Constr. Co., Inc., P. O. Box 9162, Houston 11, Texas (B)
 Windham & Sons, Inc., P. O. Box 789, Livingston, Texas (B)
 Wohlfeld, Nathan, 6702 Cedar Springs Ave., P. O. Box 7084, Love Field Br., Dallas 9, Texas (B)
 Wood, Louis A., 602 E. 24th St., Houston 8, Texas (B)
 Woodruff, W. E., Co., 3201 Liberty Rd., Houston 10, Texas (B)
 Zachry, H. B., Co., P. O. Box 2570, San Antonio 6, Texas (B-H-Hvy-RR)
 Zempter, J. W., Contr. Co., Inc., P. O. Box 57, 6502 Broadway, Galveston, Texas (B)

(e) SAN ANTONIO CHAPTER

President—John C. Worcester, 1203 Transit Tower, San Antonio, Texas
Secretary—Paul W. Adams, 229 Transit Tower, P. O. Box 2448, San Antonio 6, Texas
Telephone: Garfield 9221
 Baugh & Scott, 605 Culebra Ave., San Antonio, Texas (B)
 Browning, C. L., Jr., P. O. Box 5067, Beacon Hill Sta., San Antonio, Texas (B)

Chamberlain & Strain, 607 National Bank of Commerce Bldg., San Antonio 5, Texas (B)
 Christy & Baskett, American Hospital & Life Bldg., San Antonio 5, Texas (B)
 Forgy Constr. Co., P. O. Box 6521, Alamo Hts. Br., San Antonio, Texas (B)
 Hill & Combs, 321 Melrose Pl., San Antonio 1, Texas (B-Hvy)
 Lynn & Morsey, 407 Ira Ave., P. O. Box 2546, San Antonio 6, Texas (B)
 Martin, J. B., P. O. Box 37, Grayson St. Sta., San Antonio 8, Texas (B)
 McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas (B-H-Hvy)
 Mitchell, C. W., 811 American Hospital & Life Bldg., San Antonio 5, Texas (B)
 Phelps, Judson H., Rt. 2, Box 208-L, San Antonio, Texas (B)
 Prassel, Victor, P. O. Box 526, San Antonio 6, Texas (B-Hvy)
 Rheiner, A. E., & Co., 2304 Transit Tower, San Antonio, Texas (B)
 Rheiner, D. J., Constr. Co., 409 Insurance Bldg., San Antonio, Texas (B)
 Scott, F. L., & Son, 2402 W. Kings Hwy., San Antonio 1, Texas (B)
 von Rosenberg, H. J., 330 Melrose Pl., San Antonio 5, Texas (B)
 Walsh & Burney Co., 928 N. Flores St., San Antonio 1, Texas (B-H-Hvy)
 Worcester, John C., 1203 Transit Tower, San Antonio, Texas (B)

(f) TEXAS HIGHWAY BRANCH

President—R. W. McKinney, P. O. Drawer 190, Nacogdoches, Texas
Vice President—Sam Pinson, Austin Bridge Co., P. O. Box 1590, Dallas 1, Texas
Secretary-Treasurer—Vance Newell, Austin Hotel, Austin 64, Texas
Telephone: 6-9662
 Adams, Geo. B., 808 Ennis Ave., Bryan, Texas (H)
 Adams, R. N., P. O. Box 376, Kaufman, Texas (H)
 Allhands & Briley, Southwestern Life Bldg., Dallas 1, Texas (H)
 Allhands & Swartzell, Inc., Southwestern Life Bldg., Dallas 1, Texas (H)
 Anglin, Ross, P. O. Box 4038, Austin, Texas (H)
 Armstrong & Armstrong, Box 873, Roswell, N. Mex. (H)
 Austin Bridge Co., P. O. Box 1590, Dallas 1, Texas (H)
 Austin Road Co., Box 1590, Dallas 1, Texas (H)
 Barnes, W. L., 3102 Perry Lane, Austin, Texas (H)
 Bell, Braden, Barker & Gilvin, Inc., Box 2268, Amarillo, Texas (H)
 Briggs, R. W., & Co., P. O. Box 1981, San Antonio, Texas (B-H-Hvy)
 Brittain & Gibbons, Box 7067, Fort Worth, Texas (H)
 Brown, Marvin, Inc., P. O. Box 14117, Houston, Texas (H)
 Brown & Root, Inc., P. O. Box 1139, Austin, & P. O. Box 3, Houston 1, Texas (H-Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

- Buckner, John F., & Sons, P. O. Box 76, 509 S. Main, Cleburne, Texas (H)
- Buckner, R. C., P. O. Box 609, Jacksonville, Texas (H)
- Bucy, A. L., 804 Avenue I, Brownwood, Texas (H)
- Butler, H. L., & Son, P. O. Box 7112, Dallas 9, Texas (H)
- Butler, R. B., Inc., Box 471, Bryan, Texas (H)
- Cage Bros., 6959 San Pedro, Rt. 10, Box 46, San Antonio, Texas (H)
- Cagle, Harry E., 4304 Dixie Dr., Houston, Texas (H-Hvy)
- Callan Constr. Co., P. O. Box 3146, Westview Sta., Waco, Texas (H)
- Campbell, Harry, 2854 Berry St., Fort Worth 4, Texas (H)
- Campbell & Kay, P. O. Box 836, Tyler, Texas (B-H-Hvy-RR)
- Canion, J. R., Constr. Co., P. O. Box 756, Austin, Texas (H-Hvy)
- Clardy, J. B., Constr. Co., Box 7024, Sylvania Sta., Fort Worth, Texas (H)
- Clinton, Houston, & Co., P. O. Box 542, Waco, Texas (H)
- Cloud, Dudley R., & Son, 1903 Transit Tower, San Antonio, Texas (H-Hvy)
- Cohen, Chas., Dunn Bldg., Marshall, Texas (H-Hvy)
- Colglazier & Hoff, Inc., 326 Seguin Rd., San Antonio 8, Texas (H)
- Collins Constr. Co., P. O. Box 1192, Austin 6, Texas (H-Hvy)
- Cooper & Woodruff, 222 Mays Bldg., Amarillo, Texas (H)
- Crawford, W. S., Co., 5350 Montrose Dr., Dallas 9, Texas (H)
- D & H Constr. Co., Box 7053, Dallas 9, Texas (H)
- Dailey & Hollifield, 309 Frost National Bank Bldg., San Antonio 5, Texas (H)
- Darby, E. B., Co., Box 467, Pharr, Texas (H)
- Davidson, Joe, P. O. Box 439, Terrell, Texas (H)
- Dellinger, J. M., Inc., P. O. Box 4227, Corpus Christi, Texas (H)
- Dement, Ivan, Box 1787, Amarillo, Texas (H)
- Dew Constr. Co., Box 611, Tyler, Texas (H)
- Dodds & Wedegartner, Inc., Box 1950, San Benito, Texas (H)
- Farnsworth & Chambers Co., Inc., P. O. Box 74, Houston 1, Texas (B-H-Hvy)
- Farquhar, N. B., 6 Buccaneer Dr., Corpus Christi, Texas (H)
- Farr, R. T., 1240 San Felipe Rd., Angleton, Texas (H)
- Freeland, Jack, & Co., 6637 W. Commerce, San Antonio, Texas (H)
- Gaylord Constr. Co., 806 Blodgett St., Houston 6, Texas (H-Hvy)
- General Constr. Co., P. O. Box 1524, Fort Worth 1, Texas (H)
- Gifford-Hill & Co., Inc., Texas Bank Bldg., Dallas 2, Texas (H-RR)
- Gulf Bitulithic Co., P. O. Box 2572, Houston 1, Texas (H-Hvy)
- Hable, E. W., & Sons, P. O. Box 628, Corsicana, Texas (H)
- Hanson, Olene, 4906 Griggs Rd., Houston, Texas (H)
- Harrison Engr. & Constr. Corp., 4638 Mill Creek Pkwy., Kansas City 2, Mo. (H-Hvy)
- Heidelberg, C. R., 320 Jackson St., Jacksonville, Texas (H)
- Heldenfels Bros., P. O. Box 1917, Corpus Christi, Texas (H)
- Henderson, H. R., & Co., Drawer 313, Marshall, Texas (H)
- Hoffman, Ned B., Fort Worth Club Bldg., Fort Worth, Texas (H)
- Hood, E. E., & Son, Box 6097, Harlandale Sta., San Antonio, Texas (H)
- Howard, J. H., Madisonville, Texas (H)
- Howard, O. W., Madisonville, Texas (H)
- Jarbet Co., The, 903 Basse Rd., San Antonio, Texas (H)
- Kelly Constr. Co., 2215 Belknap, San Antonio 1, Texas (H-Hvy)
- Kies, Geo., 4612 Ridge Oak Dr., Austin 3, Texas (H)
- Killian-Keller Co., P. O. Box 393, Fredericksburg, Texas (H)
- Killian, M. B., 250 Mary Louise Dr., San Antonio, Texas (H)
- Lacy, L. H., Co., 5630 Yale Blvd., Dallas 5, Texas (B-H)
- Larson, Norman L., 305 Littlefield Bldg., Austin, Texas (H)
- Leslie, John T., 5513 E. Grand Ave., Dallas, Texas (H)
- Livingston, C. H., Box 143, Bay Ridge Rd., La Porte, Texas (H)
- Lloyd, Ernest, P. O. Box 1120, Fort Worth, Texas (H)
- McCall Engr. Co., P. O. Box 2213, Houston, Texas (B-Hvy)
- McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas (B-H-RR)
- McKinney, R. W., P. O. Drawer 190, Nacogdoches, Texas (H)
- McKown & Sons, Box 785, Austin, Texas (H)
- McMillan, Hugh, P. O. Box 1227, El Paso, Texas (H)
- McMillin-Burkett Constr. Co., P. O. Box 450, Texarkana, Texas (H)
- Miles, L. J., Constr. Co., Box 3217, Poly. Sta., Fort Worth, Texas (H)
- Mitchell, Russ, Inc., 5304 Old Spanish Trail, Box 8056, Houston 3, Texas (H)
- Moore, Bart, Co., P. O. Box 6557, Alamo Heights Br., San Antonio 9, Texas (H)
- Moore Bros. Constr. Co., P. O. Box 35, Lufkin, Texas (H-Hvy)
- Newton, Harry, Inc., Graham Land Office Bldg., Graham, Texas (H)
- Oldt, F. S., Co., 403 S. Haskell, Dallas, Texas (H-Hvy)
- Pace-Spence Co., 3503 East Ave., Austin, Texas (H-Hvy)
- Page, Holland, Box 1181, Austin, Texas (H)
- Panhandle Constr. Co., 620 Texas, Lubbock, Texas (H-Hvy)
- Phelphey, L. W., Co., P. O. Box 1166, Glade-water, Texas (H)
- Phelphey, W. O., 1412 Electric Bldg., Fort Worth 2, Texas (H)
- Perry, J. W., 501 Insurance Bldg., San Antonio 5, Texas (H)
- Public Constr. Co., Box 380, Denton, Texas (H)
- Reeves, F. M., & Sons, P. O. Box 972, Austin 5, Texas (H)
- Ruby, M. E., Box 96, San Marcos, Texas (H)
- Schwabe Bros., 6633 W. Commerce St., San Antonio, Texas (H-Hvy)
- Sira, Ben, & Co., 6419 Maple Ave., Dallas 9, Texas (H)
- Skinner, Dean, Box 4057, No., Austin, Texas (H)
- Smith, R. B., Inc., 3702 Glenn Haven, Houston 5, Texas (H)
- South Texas Constr. Co., P. O. Box 3536, Corpus Christi, Texas (H)
- Southern Contr. Co., Box 460, Austin, Texas (H)
- Spencer Constr. Co., P. O. Box 487, Carrollton, Texas (H-Hvy-RR)
- Standard Paving Co., 709 Fort Worth National Bank Bldg., Fort Worth 2, Texas (H)
- Strain & Brown, Inc., Box 1057, San Angelo, Texas (H)
- Strain, C. Hunter, P. O. Box 1057, San Angelo, Texas (H)
- Sunset Constr. Co., P. O. Box 1981, San Antonio, Texas (H)
- Teccon Constr. Co., Inc., 1201 Main St., Dallas, Texas (H)
- Texas Bitulithic Co., P. O. Box 5297, Dallas 2, Texas (H)
- Thomas & Ratliff, Rogers, Texas (H)
- Trotti & Thomson, Inc., P. O. Box 70, Beaumont, Texas (H)
- Turner, Luther A., & Son, Box 542, Buda, Texas (H)
- Uvalde Constr. Co., P. O. Box 3027, Dallas 1, Texas (H-Hvy)
- Vardeman, T. R., & Son, 727½ E. Main, Box 485, Nacogdoches, Texas (H)
- Vowell Constr. Co., P. O. Box 253, El Paso, Texas (H)
- Wallace & Bowden, 5513½ E. Grand Ave., Dallas 10, Texas (H)
- Wendel Constr. Co., P. O. Box 231, El Campo, Texas (H)
- Western Contracting Corporation, 400 Benson Bldg., Sioux City, Iowa (H)
- Word, Dean, & Co., Box 330, New Braunfels, Texas (H)
- Worrell, M. E., Box 278, Junction, Texas (H)
- Worrell & Watkins, P. O. Box 5084, Dallas, Texas (H)
- Worth Constr. Co., P. O. Box 531, Fort Worth, Texas (H)
- Wright, W. V., Constr. Co., Box 9688, Dallas 14, Texas (H)
- Zachry, H. B., Co., P. O. Box 2570, San Antonio, Texas (B-H-Hvy-RR)

**(g) PANHANDLE OF TEXAS
CHAPTER**

- President**—M. W. Hamilton, C. S. Lambie & Co., 431 Amarillo Bldg., P.O. Box 1167, Amarillo, Texas
- Executive Secretary**—Leslie B. Jones, 1009 Lincoln St., Amarillo, Texas
- Hill, F. D., Constr. Co., 1013 W. 14th, P. O. Box 207, Amarillo, Texas (B)
- Jesse, Frank, 2416 Hughes St., Amarillo, Texas (B)
- Lambie, C. S., & Co., 431 Amarillo Bldg., P. O. Box 1167, Amarillo, Texas (B)

TEXAS—Continued

Mathis, Claude E., 301 N. Tyler St., P. O. Box 1727, Amarillo, Texas (B)
 Ramey Constr. Co., Paramount Bldg., P. O. Box 6, Amarillo, Texas (B)
 Randall Bldg. Co., 528 Amarillo Bldg., Amarillo, Texas (B)
 Richards, Floyd, 511 W. 5th St., Amarillo, Texas (B)
 Singleton, Musick & Co., 514 N. Fillmore St., P. O. Box 2130, Amarillo, Texas (B)
 Smith & Robinson, 401 Cedar St., Borger, Texas (B)
 Timmons Constr. Co., 1707½ W. 7th Ave., P. O. Box 3128, Amarillo, Texas (B)
 Tri-State Constr. Co., P. O. Box 851, Amarillo, Texas (B)
 Wedding & Cochran, 315 Lipscomb St., P. O. Box 1592, Amarillo, Texas (B)
 Wirtz, Walter E., 504 Jefferson St., P. O. Box 906, Amarillo, Texas (B)

(h) ASSOCIATED GENERAL CONTRACTORS OF JEFFERSON COUNTY

President—Winter King, Winter King & Son, 2293 Park St., Beaumont, Texas
Secretary—A. E. Wenham, 2276 Park St., Beaumont, Texas
Telephone: 2-8311
 Andrus, M. R., 1433 Emile, Beaumont, Texas (B)
 Beaumont Constr. Co., P. O. Box 2814, Beaumont, Texas (H-Hvy)
 Collins, O. W., 2048 Procter St., Port Arthur, Texas (B-Hvy)
 Farnsworth, R. P., & Co., P. O. Box 1029, Beaumont, Texas (B)
 Foster Bros., 1948 Stadium Rd., Port Arthur, Texas (B)
 Foster, H. B., 4125 16th St., Port Arthur, Texas (B)
 Hays, A. L., & Son, P. O. Box 301, Port Arthur, Texas (B)
 King, Winter, & Son, 2293 Park St., Beaumont, Texas (B)
 Meigs, Hilton, 3250 French Dr., Beaumont, Texas (B)
 Ratcliff Bros. Constr. Co., 312 Main St., Liberty, Texas (B)
 Sargl, G., Box 1007, Beaumont, Texas (B)
 Schneider Constr. Co., P. O. Box 13157, Houston 19, Texas (B)
 Tellepsen Constr. Co., 1710 Telephone Rd., Houston 1, Texas (B-Hvy)
 Weber, Herman, Inc., 800 N. Pearl St., Beaumont, Texas (B)

(i) SOUTH TEXAS CHAPTER

President—C. L. Cox, Lawless & Alford, Inc., Box 1248, Corpus Christi, Texas
Managing Director—Curtis Bell, 902 Kinney St., Corpus Christi, Texas
Telephone: 23393
 Adams, John, 1512 Mesquite St., Corpus Christi, Texas (B)
 Aikin, Lee, P. O. Box 2350, Corpus Christi, Texas (B-Hvy)

Arthur Bros., 913 S. 6th St., P. O. Box 1089, Kingsville, Texas (B)
 Beck-Henderson, P. O. Box 277, Corpus Christi, Texas (B)
 Beck, O. J., & Sons, 340 Westchester Dr., Corpus Christi, Texas (B)
 Birmingham, J. W., Constr. Co., Inc., 1809½ Morgan St., Corpus Christi, Texas (B)
 Bigler & Bigler, 1545 Clodah, Corpus Christi, Texas (B)
 Braselton Constr. Co., Box 4027, Corpus Christi, Texas (B)
 Burnett Constr. Co., Box 336, Corpus Christi, Texas (B)
 Davis Constr. Co., 3132 Morgan Ave., Corpus Christi, Texas (B)
 Edgeworth Constr. Co., 433 Villa Dr., Corpus Christi, Texas (B-H)
 Eisenhauer, E., 1124 N. Tanchua St., Corpus Christi, Texas (B)
 Gilbreath & Blankinship, 532 Craig Ave., Alice, Texas (B)
 Goldston Co., The, 918 E. Port, P. O. Box 672, Corpus Christi, Texas (Hvy)
 Harrison, E. E., P. O. Box 477, Corpus Christi, Texas (B)
 Hinchberger Constr. Co., P. O. Box 134, Corpus Christi, Texas (B)
 Hinman, A. E., 957 Navigation Blvd., Box 1672, Corpus Christi, Texas (B-Hvy)
 Jackson, E. B., Box 1263, Corpus Christi, Texas (B)
 Lawless & Alford, Box 1248, Corpus Christi, Texas (B)
 Leslie, C. E., P. O. Box 1269, Kingsville, Texas (B-Hvy)
 Linbeck Constr. Corp., P. O. Box 13007, Houston 19, Texas (B)
 Phillips, John W., 324 Parr St., P. O. Box 3253, Corpus Christi, Texas (B)
 Ricks, J. E., Constr. Co., P. O. Box 4141, 6215 Georgetown Rd., Austin 51, Texas (B)
 Slovak Bros., Whalen Dr., Box 5096, Corpus Christi, Texas (B-H)
 Tellepsen Constr. Co., 1710 Telephone Rd., P. O. Box 2536, Houston 1, Texas (B-Hvy)
 Walsh, J. A., 313 Bartlett Dr., Corpus Christi, Texas (B)
 Weaver Constr. Co., 628 Atlantic, Corpus Christi, Texas (B)
 Wolter, W. H., 109 N. Carrizo St., Corpus Christi, Texas (B)
 Woodruff, H. E., Box 1146, Corpus Christi, Texas (B)
 Zachry, H. B., Co., P. O. Box 2570, San Antonio, Texas (B-H-Hvy-RR)

(j) MUNICIPAL CONTRACTORS ASSOCIATION (TEXAS)

President—A. J. McKenzie, Jr., McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas
Managing Director—R. M. Dixon, 212 Thomas Bldg., Dallas 2, Texas
Telephone: PR-1206
 Allison, H. F., Co., 7110 Junius, Dallas 14, Texas (Hvy)
 Asplund Constr. Co., Box 1665, Enid, Okla. (Hvy)

B & M Constr. Corp., 1501 Petroleum Bldg., Oklahoma City, Okla. (Hvy)
 Baker, Earl W., Co., Box 200 Warr Acres, Oklahoma City, Okla. (Hvy)
 Bartholomew, J. G., 513 Gulf States Bldg., Dallas 1, Texas (Hvy)
 Bate, Thos., & Sons, 1107 Girard St., Houston 10, Texas (B-Hvy)
 Bland, Joe, Constr. Co., 4704 E. 1st St., P. O. Box 1158, Austin, Texas (Hvy)
 Broughton, O. J., 2928 Amherst, Dallas, Texas (Hvy)
 Brown, Marvin, Inc., 4425 Dupont St., P. O. Box 14117, Houston, Texas (H-Hvy)
 Brown & Root, Inc., P. O. Box 3, Houston 1, Texas (Hvy)
 Butler, H. L., & Son, P. O. Box 7112, Dallas, Texas (Hvy)
 Carey & Newton Co., Box 832, Brownwood, Texas (Hvy)
 Century Constr. Co., P. O. Box 5175, Houston, Texas (Hvy)
 Cullum, W. G., & Co., 502 Great National Life Bldg., Dallas, Texas (Hvy)
 Dalton, E. L., & Co., Ltd., 3003 Hawes St., P. O. Box 7125, Dallas, Texas (Hvy)
 Darby, Mitchell, Constr. Co., 32-A M. & J. Nelson Bldg., McAllen, Texas (Hvy)
 Diamond Engr. Co., 8100 2d Ave., Dallas, Texas (Hvy)
 Dickerson, G. W., 2322 Culebra Ave., San Antonio, Texas (Hvy)
 Doerfler Constr. Co., 2514 S. Agnew, Oklahoma City, Okla. (Hvy)
 Farrow, E. E., Co., Box 7145, Dallas 9, Texas (Hvy)
 Gardner, Elmer C., Inc., 2704 Sackett St., Houston 6, Texas (Hvy)
 George Constr. Co., P. O. Box 2573, Houston, Texas (Hvy)
 George, J. D., Co., 707 Amicable Bldg., Waco, Texas (Hvy)
 Glade Constr. Co., 408 Century Bldg., Fort Worth, Texas (Hvy)
 Happel, H. J., Constr. Co., 5501 E. Admiral Blvd., Tulsa, Okla. (Hvy)
 Harrison, C. H., P. O. Box 185, Waco, Texas (Hvy)
 Heffernan, J. Jr., 2312 Southmore, Houston, Texas (Hvy)
 Heldenfels Bros., P. O. Box 1917, Corpus Christi, Texas (Hvy)
 Holland, John G., Constr. Co., 1602 Old Spanish Trail, Houston, Texas (Hvy)
 Holtzer, Herman W., P. O. Box 1061, Fort Worth, Texas (Hvy)
 Imperial Paving Co., 700 E. Grand Ave., Oklahoma City 4, Okla. (Hvy)
 Koehler, A. S., P. O. Box 6235, Houston, Texas (Hvy)
 Koller Constr. Co., 312 City National Bldg., Oklahoma City, Okla. (Hvy)
 Layne-Texas Co., Ltd., The, 6419 Maple, Dallas, & P. O. Box 9098, Houston 11, Texas (Hvy)
 Lee, T. H., 401 N. Tanchua, Rm. 128, Corpus Christi, Texas (Hvy)
 McDonald Constr. Co., 4039 S. Lamar St., Dallas, Texas (Hvy)
 McDonald, Henry C., Co., P. O. Box 1032, Kilgore, Texas (Hvy)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

McIllyar, W. K., Constr. Co., 8505 Douglas, Dallas, Texas (Hvy)
 McKenzie Constr. Co., P. O. Box 806, San Antonio 6, Texas (Hvy)
 Midwest Contr. Co., 415 S. Haskell Ave., Dallas, Texas (Hvy)
 Mitchell, Roy M., 2120 W. Erwin St., Tyler, Texas (Hvy)
 Mitchell, Russ, Inc., 5304 Old Spanish Trail, Box 8068, Houston 3, Texas (Hvy)
 Mora, Gerald, P. O. Box 2623, Houston, Texas (Hvy)
 Nunn, Paul H., 5100 Belle Isle, Oklahoma City, Okla. (Hvy)
 Oldt, F. S., Co., 403 S. Haskell, Dallas, Texas (Hvy)
 Osage Constr. Co., 1413 S. Blackwelder Ave., Oklahoma City, Okla. (Hvy)
 Paddock Engr. Co. of Texas, 3727 Atwell, Dallas, Texas (Hvy)
 Panhandle Constr. Co., P. O. Box 1500, Lubbock, Texas (Hvy)
 Pelphrey & Basham, Inc., Electric Bldg., Fort Worth, Texas (Hvy)
 Pennington & Winter Constr. Co., 2911 Apco Tower, Oklahoma City, Okla. (Hvy)
 Ransdell Constr. Co., 1014 National City Bank Bldg., Dallas, Texas (Hvy)
 Rea, Wayne L., P. O. Box 1192, Corpus Christi, Texas (Hvy)
 Red River Constr. Co., 2212 Hollywood Ave., Shreveport, La. (B)
 Reeder, E. H., Constr. Co., 2128 Hawes Ave., Dallas, Texas (Hvy)
 Richardson Constr. Co., 1616 Rogers Rd., Fort Worth, Texas (Hvy)
 Sherman Machine & Iron Works, 26 E. Main St., Oklahoma City, Okla. (Hvy)
 Sira, Ben, & Co., 6419 Maple Ave., Dallas, Texas (Hvy)
 Small, C. E., 617 1st National Bank Bldg., Dallas, Texas (Hvy)
 Smith, Roger, P. O. Box 182, Waco, Texas (Hvy)
 Sorenson, P. C., & Co., Inc., P. O. Box 4093, Dallas, Texas (Hvy)
 Southwest Paving Co., P. O. Box 8065, Houston 4, Texas (Hvy)
 Stimson Corp., P. O. Box 5302, Dallas, Texas (Hvy)
 Stovall, R. B., Co., P. O. Box 7143, Dallas, Texas (Hvy)
 Stowell, F. M., 5208 E. 15th St., Tulsa, Okla. (Hvy)
 Swatek Constr. Co., Hightower Bldg., Oklahoma City, Okla. (Hvy)
 Swilling & Boyd, P. O. Box 569, Pineville, La. (Hvy)
 Trueheart, J. C., Constr. Co., 812 Insurance Bldg., San Antonio, Texas (Hvy)
 Uvalde Constr. Co., P. O. Box 3027, Dallas, Texas (Hvy)
 Wagner, Karl B., Box 4116, Austin, Texas (Hvy)
 Walsh Constr. Co., Electra, Texas (Hvy)
 Whittle, R. D., Constr. Co., P. O. Box 5602, Dallas, Texas (Hvy)
 Williams, Cole, Inc., 7903 Manderville Lane, Dallas 6, Texas (Hvy)

Williams, J. L., Constr. Co., Inc., 5609 Bellaire Blvd., P. O. Box 164, Bellaire, Texas (Hvy)

(k) AUSTIN CHAPTER

President—John Broad, John Broad Constr. Co., P. O. Box 494, 1711 W. 5th, Austin 63, Texas
Executive Secretary—Miss Fannie Davis, P. O. Box 704, 609 S. Lamar, Austin 64, Texas
Telephone: 7-9459

Ainsworth, A. G., Constr. Co., 1010 W. 3d St., P. O. Box 13, Austin 61, Texas (B)
 Anderson, W. D., Co., 3100 Beverly Rd., Austin 3, Texas (B)
 Broad, John, Constr. Co., P. O. Box 494, 1711 W. 5th, Austin 63, Texas (B)
 Chandler Constr. Co., Box 84, 603 E. 29th St., Cameron, Texas (B)
 Crockett, Leslie, Constr. Co., P. O. Box 4036, 5619 Airport Blvd., Austin 51, Texas (B)
 DeBusk, Kelly S., Jr., 2607 Westover Rd., Austin 3, Texas (B)
 Eitze-Kitchens Constr. Co., 4614 San Antonio Hwy., Austin 13, Texas (B)
 Evans, J. C., 4415 Shoalwood Ave., Austin 5, Texas (B)
 Fulcher, Gordon, Constr. Co., P. O. Box 13, 1010 W. 3d St., Austin 61, Texas (B)
 Jones, Jo B., Co., 2501 E. 5th St., P. O. Box 330, Austin 62, Texas (B)
 Kitchens, Rex D., Constr. Co., P. O. Box 3006, 608 W. Monroe, Austin 13, Texas (B-H)
 Lawless & Alford, Inc., P. O. Box 600, 5117 E. 1st St., Austin 63, Texas (B)
 McCandless, L. L., Constr. Co., P. O. Box 892, 408 Comal St., Austin 65, Texas (B)
 Moore Constr. Co., P. O. Box 300, 125 Riverside Dr., Austin 62, Texas (B)
 Morris, Robt., Constr. Co., P. O. Box 1121, Green Acres Addition, Austin 66, Texas (B)
 Odom, J. M., P. O. Box 774, 914 Congress Ave., Austin 64, Texas (B-H)
 Pekar, R. J., 4001 Cherrywood Rd., Austin 2, Texas (B)
 Reich, Hugh D., P. O. Box 373, 2301 Canterbury, Austin 62, Texas (B)
 Ricks, J. E., Constr. Co., P. O. Box 4141, 6215 Georgetown Rd., Austin 51, Texas (B)
 Rundell, Frank R., P. O. Box 455, 309 Bowie, Austin 63, Texas (B)
 Snead, E. B., Constr. Co., P. O. Box 777, Aero-Tel Airport, Austin 64, Texas (B)
 Starling Constr. Co., P. O. Box 109, Burnet Rd., Austin 62, Texas (B)
 Temple Housing Corp., 14 W. Adams Ave., P. O. Box 425, Temple, Texas (B)
 Webb, T. A., 2205 Swisher, Austin 5, Texas (B)
 Weise Bros., 2600 Red River St., Austin 5, Texas (B)
 Woehl, A. J., P. O. Box 4, Bastrop, Texas (B)

(l) WACO CHAPTER

President — J. T. Hooker, Hooker Constr. Co., 1315 N. 4th St., P. O. Box 2025, Waco, Texas
Manager—Brooks W. Pearson, 1802½ Franklin Ave., P. O. Box 1968, Waco, Texas
Telephone: 4-4931

Adams, Wm. C., & Co., 3411 Franklin Ave., P. O. Box 795, Waco, Texas (B)
 Chapman, Oscar T., Inc., P. O. Box 37, Hutchins, Texas (B)
 Hendrick, C. L., & Sons, 2111 N. 21st St., Waco, Texas (B)
 Hendrick, David R., & Co., 1118½ Franklin Ave., P. O. Box 956, Waco, Texas (B)
 Hicks Constr. Co., 2911 N. 18th St., P. O. Box 2143, Waco, Texas (B)
 Hooker Constr. Co., 1315 N. 4th St., P. O. Box 2025, Waco, Texas (B)
 Johnson, Ed, Marlin Hwy., P. O. Box 424, Waco, Texas (B)
 Jones & Williams Constr. Co., 2504 LaSalle St., P. O. Box 2097, Waco, Texas (B)
 Smith Bldg. Co., Inc., 2512 Franklin Ave., P. O. Box 796, Waco, Texas (B)
 Sparks, K. A., 523 E. Pierson St., Hamilton, Texas (B)
 Sparks, W. P., Jr., 3318 Mitchell Rd., Waco, Texas (B)

(m) PIPE LINE CONTRACTORS' ASSOCIATION (TEXAS)

President—Robt. A. Conyes, Conyes Constr. Corp., 2884 San Pablo Ave., San Pablo, Calif.

Executive Secretary—Richard A. Gump, 1023 Mercantile Bank Bldg., Dallas, Texas
Telephone: Prospect 8424

Anderson Bros. Corp., 707 N. Drennan St., P. O. Box 2591, Houston, Texas (Hvy)
 Anderson Constr. Co., Box 116, Salem, Ill. (Hvy)
 Associated Pipe Line Contrs., Inc., 11-12 Lamar-River Oaks Shopping Center, 3272 Westheimer, P. O. Box 2163, Houston 1, Texas (Hvy)
 Bechtel Corp., 220 Bush St., San Francisco 4, Calif. (Hvy)
 Bishop & Lock Constr. Co., 1018 Magnolia Bldg., Dallas 1, Texas (Hvy)
 Britton Contr. Co., Inc., 55 S. Main St., Washington, Pa. (Hvy)
 Brodie Constr. Co., P. O. Box 2064, Amarillo, Texas (Hvy)
 Burden, O. R., Constr. Corp., P. O. Box 5216, Tulsa, Okla. (Hvy)
 Conyes Constr. Corp., 2884 San Pablo Ave., San Pablo, Calif. (Hvy)
 Eastern Pipeline Contrs., 1801 Mercantile Bank Bldg., Dallas 1, Texas (Hvy)
 Engineers Ltd. Pipeline Co., 225 Bush St., San Francisco 4, Calif. (Hvy)
 Fahey, John D., & Son, Inc., Rm. 306, 1st National Bank Bldg., Waynesburg, Pa. (Hvy)
 Farley, L. E., Inc., 2609 Sunset Blvd., Houston 5, Texas (Hvy)

TEXAS—Continued

Foreman, C. S., Co., 1900 Armour Rd., North Kansas City, Mo. (Hvy)
 Fowler, C. Wayne, Pipe Line Constr., Inc., P. O. Box 368, Cotton Valley, La. (Hvy)
 Fulghum Constr. Corp., P. O. Box 1181, Harrisburg, Pa. (Hvy)
 Fulton, R. H., & Co., P. O. Box 1526, Lubbock, Texas (Hvy)
 Griffis, G. G., Inc., P. O. Box 418, Tulsa, Okla. (Hvy)
 Houston Constr. Co., 2707 Ferndale Pl., Houston 6, Texas (Hvy)
 Jayhawk Constr. Co., Inc., The, Box 68, Great Bend, Kans. (Hvy)
 Knupp Constr. Co., Inc., P. O. Box 152, Great Bend, Kans. (Hvy)
 Little, I. C., 225 Southland Hotel Bldg., Dallas, Texas (Hvy)
 Mahoney Constr. Co., 2300 N. Grand River, Lansing, Mich. (Hvy)
 Massey Pipe Line Constr. Co., P. O. Box 2099, Corpus Christi, Texas (Hvy)
 McVean & Barlow, P. O. Box 151, Odessa, Texas (Hvy)
 Mid-States Constr. Co., Inc., P. O. Box 417, Mt. Vernon, Ill. (Hvy)
 Midwestern Constrs., Inc., 105 N. Boulder, Tulsa 3, Okla. (Hvy)
 Midwestern Constrs., Inc., 130 W. Liberty Dr., Box 587, Wheaton, Ill. (Hvy)
 Oklahoma Constr. Co., 6612 Harry Hines Blvd., P. O. Box 1073, Dallas, Texas (Hvy)
 Pipe Line Constr. & Drilling Co., P. O. Box 165, Camp Hill, Pa. (Hvy)
 Potashnick, R. B., P. O. Box 205, Cape Girardeau, Mo. (Hvy)
 Price, H. C., Co., Union National Bank Bldg., Bartlesville, Okla. (Hvy)
 Rumsey Bros. Pipe Line Constr. Co., 3215 N. Broadway, Wichita, Kans. (Hvy)
 Saigh, N. A., Co., Inc., 531 Majestic Bldg., San Antonio 5, Texas (Hvy)
 Sheehan Pipe Line Constr. Co., 529 National Bank of Tulsa Bldg., Tulsa 3, Okla. (Hvy)
 Smith Constr. Corp., 205 N. W. 7th St., Fort Worth, Texas (Hvy)
 Smith, Ray L., & Son, Inc., Box 391, El Dorado, Kans. (Hvy)
 Somerville Constr. Co., Ada, Mich. (Hvy)
 Texas-Louisiana Constrs., 6100 Camp Bowie, P. O. Box 9127, Fort Worth, Texas (Hvy)
 Trojan Constr. Co., Inc., 1416½ N. Robinson, Oklahoma City 3, Okla. (Hvy)
 Western Pipe Line Constrs., Inc., P. O. Box 798, Austin, Texas (Hvy)
 Williams-Austin Co., 707 Grant Bldg., Pittsburgh 19, Pa. (Hvy)
 Williams Bros. Co., 324 National Bank of Tulsa Bldg., Tulsa 3, Okla. (Hvy)
 Williams Bros.-Davis Co., 6006 Jensen Dr., P. O. Box 11037, Houston 16, Texas (Hvy)
 Young, L. R., Constr. Co., 1058 W. Main St., P. O. Box 270, Olney, Ill. (Hvy)
 Zachry, H. B., Co., 1100 Transit Tower, San Antonio, Texas (Hvy)

(n) EAST TEXAS CHAPTER

President—Tom Wilmoth, 108 Highland Ave., Longview, Texas
Secretary—Raymond Cupp, P. O. Box 808, Longview, Texas
Telephone: 406
 Bergstrom, H. R., & Robt. B. Yates, P. O. Box 633, Marshall, Texas (B)
 Brown, M. Clint, Co., P. O. Box 808, Longview, Texas (B)
 Byers, J. B., 2208 Florence St., Box 1215, Kilgore, Texas (B)
 Canterbury Engr. Co., P. O. Box 1494, Kilgore, Texas (B)
 Choate, Milo J., & Co., 1412 W. 5th St., Tyler, Texas (B)
 Hale, Rogers, Constr. Co., Henderson, Texas (B)
 Kerr Engr. & Constr. Co., Laird Hill Rd., Box 1342, Kilgore, Texas (B)
 Owens, J. Sam, Constr. Co., P. O. Box 1151, Longview, Texas (B)
 Sharrock, J. A., & Sons, P. O. Box 268, Marshall, Texas (B)
 Thompson & Morton Co., P. O. Box 867, Kilgore, Texas (B)
 Wilmoth, Tom, 108 Highland Ave., Longview, Texas (B)

(o) RIO GRANDE VALLEY CHAPTER

President—Jack Choate, 318 N. 4th St., P. O. Box 1465, Harlingen, Texas
Managing Director—Randolph Fleuriot, Box 496, Harlingen, Texas
Telephone: 1807
 Allen, Fred M., 718 N. Milam St., San Benito, Texas (B)
 Buice, A. A., Box 422, Elsa, Texas (B)
 Cail, Geo. F., & Son, P. O. Box 162, Port Isabel, Texas (B)
 Choate, Jack, 318 N. 4th St., P. O. Box 1465, Harlingen, Texas (B)
 Hendricks, Harold, Constr. Co., One Mile S. 10th St., McAllen, Texas (B)
 Hughes, J. B., Box 902, Brownsville, Texas (B)
 LeMay, Ralph B., 811 Nebraska, Weslaco, Texas (B)
 Marchant Bros., Rm. 309, Hidalgo County Bank Bldg., P. O. Box 545, Mercedes, Texas (B)
 Mullen, D. L., & Co., 155 Palm Blvd., Brownsville, Texas (B)
 Parker Constr. Co., P. O. Box 821, Harlingen, Texas (B)
 Swanzy, Ralph, 900 Ash Dr., P. O. Box 196, Weslaco, Texas (B)
 Thise, C. P., 1229 W. Jackson, Box 1910, Harlingen, Texas (B)
 Uhlhorn, W. B., 1115 E. Harrison St., Box 2028, Harlingen, Texas (B)
 Waitman, E. J., 617 S. West St., Box 94, Harlingen, Texas (B)

(p) WEST TEXAS CHAPTER

President—Frank Cannon, Templeton-Cannon, P. O. Box 548, San Angelo, Texas
Secretary-Treasurer—Ed Balfanz, Balfanz Constr. Co., P. O. Box 805, 1001 Chestnut St., Abilene, Texas
Executive Secretary—Hugh H. Welch, 702 N. 13th St., Abilene, Texas
Telephone: 3-1861
 B. C. D. Constr. Co., Ballinger, Texas (B)
 BMFP Constr. Co., 2010 Avenue C, Box 1595, Lubbock, Texas (B)
 Balfanz Constr. Co., 1001 Chestnut St., P. O. Box 805, Abilene, Texas (B)
 Bonine, Paul M., 2533 Jeanette St., Abilene, Texas (B)
 Bunch Constr. Co., 220 E. 21st St., Box 567, Odessa, Texas (B)
 Bundock, H. R., 3510 21st St., P. O. Box 13, Lubbock, Texas (B)
 Evans & Taylor, 600 S. Oakes, P. O. Box 1222, San Angelo, Texas (B)
 Gilstrap Constr. Co., P. O. Box 283, Lubbock, Texas (B)
 Hair, J. L., & Sons Constr. Co., 2704 Kemp Blvd., Wichita Falls, Texas (B)
 Hill, Houston, Inc., P. O. Box 1466, 307 S. Marienfield St., Midland, Texas (B)
 Horn, B. F., Co., 3000 N. 1st St., P. O. Box 493, Abilene, Texas (B)
 Jones, J. D. Constr. Co., Box 1205, Big Spring, Texas (B)
 King Constr. Co., P. O. Box 652, 2107 N. Jackson, Odessa, Texas (B)
 Lambert, E. M., & Son, 2837 Cedar St., Box 425, Abilene, Texas (B)
 M. & H. Constr. Co., 934 Beach St., Abilene, Texas (B)
 Mankins, Howard, Constr. Co., 501 E. 2d St., Odessa 14, Texas (B-Hvy)
 Maxey, Carl E., 1627 College Ave., P. O. Box 108, Lubbock, Texas (B-Hvy)
 Maxey, Robt. E., Constr. Co., 720 Avenue Q, Lubbock, Texas (B-Hvy)
 McAbee, Tom G., 2306 26th St., Lubbock, Texas (B)
 McAlister, Albert A., 1133 Albany St., Abilene, Texas (B)
 McDaniel, Boyd J., Co., 1365 Legett Dr., Abilene, Texas (B-Hvy)
 McMillan, W. G., & Son, 709 Avenue J, Box 1447, Lubbock, Texas (B)
 Newton Constr. Co., 2205 N. Grant, P. O. Box 2645, Odessa, Texas (B)
 Oates, C. B., Box 1171, Abilene, Texas (B)
 Rose Constr. Co., 1121 Walnut St., P. O. Box 814, Abilene, Texas (B)
 Sampson Bros. Constr. Co., 2210 10th St., Lubbock, Texas (B)
 Sivley, W. Rufus, 4081 Benbrook, Abilene, Texas (B)
 Sneed Constr. Co., P. O. Box 383, 1501 E. 8th, Odessa, Texas (B)
 Stanford, Pat H., Box 1882, 2511 W. S. Front St., Midland, Texas (B)
 Templeton-Cannon, 208 Central National Bank Bldg., P. O. Box 548, San Angelo, Texas (B)
 Tharp, Joe B., 36 W. 38th St., P. O. Box 1292, San Angelo, Texas (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

TEXAS—Continued

Tidmore Constr. Co., 21 Park Pl., Lubbock, Texas (B)
 Tisdell & Newton, 1517 Avenue H, Lubbock, Texas (B)
 Walden, Fulton & Payne, 116 N. College Ave., P. O. Box 628, Lubbock, Texas (B)
 Warner Constr. Co., Holcombe-Blanton Bldg., P. O. Box 769, San Angelo, Texas (B)

43. UTAH

(a) INTERMOUNTAIN BRANCH

President—Walter Christiansen, Christiansen Bros., 209 W. 13th South St., Salt Lake City, Utah
Manager—C. M. Brown, Jr., 430 S. Main St., Salt Lake City 1, Utah
Telephones: 5-7503 & 5-7504

Barker, Ellis W., Co., 302-303 Ness Bldg., Salt Lake City 1, Utah (B)
 Biesinger, Geo. L., & Son, 1449 S. 16th, E. Salt Lake City, Utah (B)
 Bowers Bldg. & Constr. Co., 1033 S. State St., Salt Lake City 4, Utah (B-H)
 Brown, Alfred, Constr. Co., 627 Dooley Bldg., Salt Lake City, Utah (B)
 Burke, Jas. J., Co., 405 Kearns Bldg., Salt Lake City 1, Utah (B-H)
 Champion Co., 202 21st St., Ogden, Utah (B)
 Cannon & Papanikolas, Box 96, Magna, Utah (B)
 Child, Ralph E., 1400 E. 4th, So., Springville, Utah (B)
 Christensen Constr. Co., Box 1165, Salt Lake City 10, Utah (H-RR)
 Christiansen Bros., 209 W. 13th, So., Salt Lake City 1, Utah (B)
 Chytraus Bros. Co., 2040 Redondo Ave., Salt Lake City, Utah (B)
 Clyde, W. W., & Co., Springville, Utah (H-Hvy)
 Davis, Ben H., 130 S. 5th, E., P. O. Box 2166, Salt Lake City, Utah (B)
 Dorland, E. H., Constr. Co., 1309 Jefferson St., Salt Lake City, Utah (B-Hvy-RR)
 Fors, Carl S., Co., 1639 E. 56th, So., Murray, Utah (B)
 Fullmer Bros., 1600 Jefferson St., Salt Lake, Utah (B)
 Gardner, W. W., 207 Interurban Bldg., Salt Lake City 1, Utah (B-H-Hvy)
 Garff, Mark B., Ryberg & Garff, Box 1204, 850 W. 15th, No., Salt Lake City, Utah (B)
 Germer, Abbott & Waldron Constr. Co., Tremont, Utah (H-Hvy)
 Gibbons & Reed Co., 259 W. 3d South St., Salt Lake City 1, Utah (H-Hvy-RR)
 Groneman & Co., 70 W. 5th, So., Provo, Utah (B)
 Hilton & Carr, 922 12th St., Box 572, Ogden, Utah (B)
 Horman Constr. Co., 1760 S. State St., Salt Lake City, Utah (B)
 Jacobsen Constr. Co., 421 W. 13th, So., Salt Lake City 2, Utah (B)
 Jensen Bros., 548 W. 2d, No., Salt Lake City 1, Utah (B)
 Jensen, R. M., Constr. Co., 1057 S. 4th, W., Salt Lake City, Utah (H-Hvy)

Jensen, Wayne A., 140 S. 5th, W., Brigham City, Utah (B)
 Johnson, L. T., 709 Wall Ave., Ogden, Utah (H)
 Johnson, Le Grand, 595 E. 1st, So., Logan, Utah (H-Hvy)
 Kloefer Constr. Co., E. Center St., Logan, Utah (B)
 Larsen Constr. & Engr. Co., 2667 Lincoln Ave., Ogden, Utah (B)
 McCullough, Maurice B., 503 13th Ave., Salt Lake City 3, Utah (B)
 McKean Constr. Co., 1625 Pioneer Rd., Industrial Center, Salt Lake City 4, Utah (B)
 Mendenhall, Deal, Springville, Utah (H-Hvy)
 Mickelson, John H., 528 E. Center St., Logan, Utah (B)
 Morrin, M., & Son, Inc., 473 W. 2d St., P. O. Box 1148, Ogden, Utah (B)
 Nelson, Carl E., 50 E. 10th, No., Logan, Utah (H)
 Nelson, Olof, Constr. Co., 620 S. Main St., Box 413, Logan, Utah (H)
 Okland Constr. Co., 2683 Glenmare St., Salt Lake City, Utah (B)
 Olson Constr. Co., 1549 S. 2d, W., P. O. Box 89, Salt Lake City, Utah (B)
 Parson & Fife Constr. Co., 620 E. 5th, So., Box 563, Brigham City, Utah (H)
 Paulsen Constr. Co., 1425 Jefferson St., P. O. Box 2514, Salt Lake City 4, Utah (B)
 Plewe Constr. Co., 838 E. S. Temple St., Salt Lake City, Utah (B)
 Raymond, Ace S., 1032 N. Main St., Box 445, Logan, Utah (B)
 Reynolds Constr. Co., Springville, Utah (H-RR)
 Romney, G. Maurice, 963 Diestel Rd., Salt Lake City, Utah (B)
 Smith, Enoch, Sons Co., 1441 Beck St., Salt Lake City 16, Utah (H-Hvy)
 Sorenson Bros., 1330 W. 4200 So., Murray, Utah (B)
 Springmeyer Investment & Constr. Co., 288 Mt. View Dr., Murray, Utah (H-Hvy)
 Stettler, Ernest, & Sons, 672 E. 9th, No., Logan, Utah (B)
 Strong & Co., Springville, Utah (H-Hvy-RR)
 Sumsion, J. M., & Sons, 389 E. 1st, So., Springville, Utah (H-Hvy-RR)
 Thorn Constr. Co., Inc., Box 111, Springville, Utah (H-RR)
 Tolboe & Harlin Constr. Co., 3091 S. Main St., Salt Lake City, Utah (B)
 Tolboe & Wootton Constr. Co., R. F. D. 2, Box 78-A, Provo, Utah (B)
 Utah Construction Co., 57 E. 4th, So., Salt Lake City 10, Utah (B-H-Hvy-RR)
 Vincent-Peterson Co., 614 S. 3d, W., Salt Lake City 1, Utah (B)
 Walker, J. B. & R. E., 21 S. 10 West St., Salt Lake City 4, Utah (H-Hvy)
 Waterfall Constr. Co., 1685 Wall Ave., Ogden, Utah (H-Hvy)
 Wheeler & Tempest, 2212 S. W. Temple, Salt Lake City 1, Utah (H-Hvy)
 Wheelwright Constr. Co., 2300 East Ave., P. O. Box 109, Ogden, Utah (H)
 Whiting, Floyd S., P. O. Box 158, Murray, Utah (H-Hvy-RR)

Whiting & Haymond, 250 W. 2d, No., Springville, Utah (H-Hvy-RR)
 Whitmeyer, Geo. A., & Sons Co., 2759 Grant Ave., P. O. Box 856, Ogden, Utah (B)
 Witt Constr. Co., P. O. Box 101, Provo, Utah (B)
 Young, L. A., Constr. Co., Richfield, Utah (H)
 Young, Perce, Bldg. Constr., 2750 S. Main St., Salt Lake City 15, Utah (B)
 Young & Smith Constr. Co., 306 Beason Bldg., Salt Lake City 5, Utah (H)

45. VIRGINIA

(a) VIRGINIA BRANCH

President—3. F. Parrott, B. F. Parrott & Co., Inc., 811 Boxley Bldg., P. O. Box 1791, Roanoke 8, Va.
Executive Secretary—Herbert W. O'Grady, Hotel King Carter, Richmond 19, Va.
Telephone: 2-9261

Adams & Tate Constr. Co., 2725 Roanoke Ave., P. O. Box 60, Roanoke, Va. (H)
 Barger, Chas. W., & Son, P. O. Box 778, Lexington, Va. (B)
 Blackwell Engr. Co., Warrenton, Va. (B-H)
 Bowerman Bros., P. O. Box 232, Berryville, Va. (B-Hvy)
 Bowles, E. G., 1705 Brook Rd., Richmond, Va. (Hvy)
 Burton, J. E., 220 Webster St., South Boston, Va. (B)
 Carpenter Constr. Co., 700 Bank of Commerce Bldg., Norfolk 10, Va. (Hvy)
 Carter-Hassell Contr. Co., Waco St. & Naval Base Rd., P. O. Box 9645, Norfolk 5, Va. (B)
 Conquest, Moncure & Dunn, Inc., 208 E. Cary St., Richmond 19, Va. (B-Hvy)
 Daniel, John W., & Co., Inc., P. O. Box 458, Danville, Va. (B)
 Davenport, A. W., & Assos., Inc., 3122 W. Clay St., Richmond 21, Va. (B-Hvy)
 DeLashmutt Bros., Inc., 1130 S. George Mason Dr., Arlington, Va. (H-Hvy-RR)
 Doyle & Russell, Central National Bank Bldg., Richmond 19, Va. (B)
 Endebrock-White Co., 9300 Warwick Rd., Box 205, Hilton Village, Va. (B)
 English Constr. Co., Altavista, Va. (B)
 Ferguson Corp., P. O. Box 480, Hampton, Va. (B)
 Fuqua, Fred B., 202 Krise Bldg., Lynchburg, Va. (B)
 Graham Bros., 906 Southern States Bldg., P. O. Box 423, Richmond, Va. (B)
 Gresham, E. T., Co., Inc., P. O. Box 1077, Norfolk 1, Va. (Hvy)
 Hall, W. A., & Co., Inc., 255 Monticello Arcade, Norfolk 10, Va. (B)
 Houska, J. R., Co., Inc., 1100 Billings St., P. O. Box 598, Norfolk 1, Va. (B)
 Howard-Mitchell Constr. Co., P. O. Box 1433, Richmond 20, Va. (B-Hvy)
 Hudgins, M. S., RFD #3, Box 136, Roanoke, Va. (H-Hvy-RR)
 Ivy Constr. Corp., P. O. Box 139, Charlottesville, Va. (B)
 Kea, Silas S., & Sons, Box 137, Ivor, Va. (B)

VIRGINIA—Continued

Laburnum Constr. Corp., Box 1234, Richmond 9, Va. (B)
 Lang Constr. Co., Inc., 21 S. King St., Hampton, Va. (B-Hvy)
 Laporte, J. A., Inc., 1101 Wilson Blvd., P. O. Box 309, Arlington, Va. (H-Hvy)
 Lee, R. E., & Son, Inc., P. O. Box 415, Charlottesville, Va. (B)
 Lockwood, C. W., 203 Porter Ave., Hampton, Va. (B)
 Marquis, Robt. R., 2229 County St., Portsmouth, Va. (B)
 Martin Bros. Contrs., Inc., 29 Kirk Ave., W., P. O. Box 433, Roanoke, Va. (B)
 Mathers, J. S., Inc., 201 S. Wayne Ave., Waynesboro, Va. (B)
 McDevitt & Street Co., 505 Builders Bldg., Box 1847, Charlotte 1, N. C. (B-H-Hvy)
 Mills, Ralph E., Co., P. O. Box 513, Salem, Va. (H-Hvy)
 Milner Constr. Co., 2508 Hermitage Rd., Richmond, Va. (B)
 Parker, O. E., & Co., Inc., 416 W. Main St., Covington, Va. (B)
 Parrott, B. F., & Co., Inc., 811 Boxley Bldg., P. O. Box 1791, Roanoke 8, Va. (B)
 Pettyjohn, John P., & Co., 212 8th St., Lynchburg, Va. (B-RR)
 Porter, Henry D., & Co., Forehand Bldg., 803 Church St., P. O. Box 981, Lynchburg, Va. (B)
 Reid & Hope, 153 N. Main St., P. O. Box 294, Suffolk, Va. (B)
 Ross, John N., 5 Raleigh Ct. Apts., Charlottesville, Va. (B)
 Sawyer Constr. Co., 300 Cherokee Rd., Hampton, Va. (B-Hvy)
 Scott, W. H., Inc., P. O. Drawer 418, Franklin, Va. (H)
 Shockey, Howard, & Sons, Inc., P. O. Box 767, Winchester, Va. (B)
 Showalter, F. L., Inc., Box 623, 1601 Allied Arts Bldg., Lynchburg, Va. (B-Hvy)
 Simpson, Eugene, & Bros., 300 Montgomery St., Alexandria, Va. (B)
 States Constr. Co., Inc., 3000 Warwick Ave., P. O. Box 664, Newport News, Va. (B-Hvy)
 Thornton Constr. Co., Inc., 2106 N. Hamilton St., P. O. Box 10, Richmond, Va. (B)
 Tidewater Construction Corp., P. O. Box 57, Norfolk, Va. (B-H-Hvy-RR)
 Tuck & Malpass, Inc., 1409 E. Indian River Rd., Norfolk 6, Va. (H-Hvy-RR)
 Turner, J. M., & Co., Inc., P. O. Box 1848, Roanoke, Va. (B)
 van Laer, Edw., Inc., 705 National Bank Bldg., Charlottesville, Va. (B)
 Virginia Engineering Co., Inc., 80 29th St., Newport News, Va. (B-H-Hvy-RR)
 Wattinger, R. H., 1 N. 6th St., P. O. Box 484, Richmond, Va. (B)
 Wilson Constr. Corp., P. O. Box 1035, Radford, Va. (B)
 Wise Contr. Co., P. O. Box 547, Richmond 4, Va. (B)

46. WASHINGTON

(a) MOUNTAIN PACIFIC CHAPTER

President—T. H. Youell, Diesel Oil Sales Co., 2155 Northlake Ave., Seattle 3, Wash.
 Secretary-Manager—W. H. Landaas, 219 Benjamin Franklin Hotel, Seattle 1, Wash.
 Telephone: Seneca 0026

Ace Constr. Co., 7510 Roosevelt Way, Seattle 5, Wash. (Hvy)
 Allstate Constr. Co., 4447 California Ave., Seattle 6, Wash. (Hvy)
 American Pile Driving Co., Inc., Pier 2, Everett, Wash. (Hvy)
 Anderson, P. J., & Sons, 13501 Aurora Ave., Seattle 33, Wash. (H-Hvy)
 Argentieri & Colarossi, 1819 Weller, Seattle 44, Wash. (Hvy)
 Associated Sand & Gravel Co., 2508 Colby Ave., Everett, Wash. (H-Hvy)
 Atkinson, Guy F., Co., 341 Skinner Bldg., Seattle 1, Wash. (B-H-Hvy-RR)
 Austin, Robt. W., 3030 28th Ave., W., Seattle 99, Wash. (H-Hvy)
 Badraun, J. J., 109 N. 122d St., Seattle 33, Wash. (Hvy-RR)
 Bay Constr., Inc., 1762 Airport Way at Holgate, Seattle 4, Wash. (H-Hvy-RR)
 Bellevue Constr. Co., Box 111, Bellevue, Wash. (H-Hvy)
 Benson-Montin, Inc., 240 Central Bldg., Seattle 4, Wash. (Hvy)
 Birch, S., & Sons Constr. Co., 208 Central Bldg., Seattle 4, Wash. (B-H-Hvy-RR)
 Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle 4, Wash. (B-H-Hvy)
 Brady Constr. Co., 707 Spokane St., Seattle 4, Wash. (B-Hvy)
 Butler Constr. & Engr. Co., 3419 13th Ave., S. W., Seattle 4, Wash. (B-H-Hvy-RR)
 C. & E. Constr. Co., Inc., 2002 Rudkin Rd., Yakima, Wash. (H-Hvy)
 Cascade Contrs., Inc., 1118 W. Henry St., Pasco, Wash. (Hvy-RR)
 Columbia Asphalt Paving Co., 206 Masonic Temple Bldg., Yakima, Wash. (H)
 Cooney, Don L., Inc., 1749 Airport Way, Seattle 4, Wash. (Hvy)
 Dahlberg, S. A., 9102 N. Mercer Way, #60, Mercer Island, Wash. (Hvy)
 Dawson Constr. Co., 1015 C St., P. O. Box 187, Bellingham, Wash. (H-Hvy)
 Diesel Oil Sales Co., 2155 Northlake Ave., Seattle 3, Wash. (H)
 Doollittle Constr. Co., 510 Adams St., Seattle 8, Wash. (H)
 Dowell, L. J., Inc., 4501 9th, N. W., Seattle 7, Wash. (H-Hvy)
 Erickson Paving Co., 1550 N. 34th St., Seattle 3, Wash. (H-Hvy-RR)
 Excavators, Inc., 5756 29th, N. E., Seattle 5, Wash. (H-Hvy)
 Fielding & Shepley, Inc., 1258 Bohn Ave., St. Paul 4, Minn. (H-Hvy)
 Fiorito Bros., 1100 Leary Way, Seattle 7, Wash. (H-Hvy)
 Fiorito, N., Co., 844 W. 48th St., Seattle 7, Wash. (H-Hvy)
 Funderburk Constr. Co., Rt. 1, Box 295, Sutherlin, Ore. (H-Hvy)
 General Construction Company, P. O. Box 3244, Seattle 14, Wash. (B-H-Hvy-RR)
 Goetz & Brennan, Seaboard Bldg., Rm. 914, Seattle 1, Wash. (H-Hvy)
 Goodfellow Bros., Inc., Box 1337, Wenatchee, Wash. (H-Hvy-RR)
 Govan, Hugh, Box 308, Port Angeles, Wash. (H)
 Grays Harbor Constr. Co., P. O. Box 743, Aberdeen, Wash. (B-H)
 Gredvig, Maurice, P. O. Box 355, Yakima, Wash. (H)
 Grove Shepherd Wilson & Kruge, Inc., 120 6th Ave., No., Seattle 9, Wash. (B-H-Hvy)
 Halleran Bros., 416 Virginia St., Seattle 1, Wash. (H)
 Hawkins & Armstrong, 16274 39th, N. E., Seattle 55, Wash. (B-H)
 Hoagland-Findlay Engr. Co., Rm. 327, Lyon Bldg., 607 3d Ave., Seattle, Wash. (Hvy)
 Hoback, L. E., 2420 E. Grand Ave., Everett, Wash. (H-Hvy)
 Jarvis, Paul, Inc., 1070 W. Ewing St., P. O. Box 4001, Interbay Sta., Seattle 99, Wash. (H-Hvy)
 Johnson, A. W., Co., Inc., 208 E. Pacific St., Seattle 5, Wash. (B-H)
 Jussel, Joe A., Dellesta Park, Bellingham, Wash. (H)
 Kathman, Herman, 12054 23d, N. E., Seattle 55, Wash. (H-Hvy)
 Kiewit, Peter, Sons' Co., 1300 Aloha St., Seattle 9, Wash. (B-H-Hvy)
 Knowles, John B., 1040 Monroe St., Wenatchee, Wash. (H-Hvy)
 Lundberg, Joe, Constr. Co., 3516 Airport Way, Seattle 4, Wash. (Hvy)
 M-B Contr. Co., 1019 Lloyd Bldg., Seattle 1, Wash. (Hvy)
 MacRae Bros., 2733 4th Ave., So., Seattle 4, Wash. (B-H)
 Malaspina, Matt, & Co., 1901 23d Ave., So., Seattle 44, Wash. (Hvy)
 McKellar, Everett, Box 965, Chelan, Wash. (H)
 Misco, Inc., Pier 50, Seattle 4, Wash. (Hvy)
 Monroe Constr. Co., W. Main & Blakely Sts., Monroe, Wash. (H-Hvy)
 Morrison Constr. Co., 512 21st, So., Seattle 4, Wash. (H-Hvy)
 Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle 4, Wash. (B-H-Hvy-RR)
 Moss, R. L., Constr. Co., P. O. Box 37, Zenith, Wash. (H-Hvy)
 Munter, M. P., Co., 1427 Joseph Vance Bldg., Seattle 1, Wash. (Hvy)
 Newburn, L. L., 6262 14th Ave., So., Seattle 8, Wash. (H-Hvy)
 Nolte, Geo. V., & Co., 3048 Marine Dr., Bellingham, Wash. (H-Hvy)
 Norris, Guy J., 1425 4th Ave. Bldg., Seattle 1, Wash. (H)
 North Seattle Constr. Co., 13061 37th, N. E., Seattle 55, Wash. (Hvy)
 Northwest Constr. Co., 3950 6th Ave., N. W., Seattle 7, Wash. (H-Hvy)
 Northwest Precote, Inc., 7343 E. Marginal Way, Seattle 8, Wash. (H-Hvy)

(Symbols following names indicate type of construction performed by company: B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

WASHINGTON—Continued

Nygren, David, 309 Lloyd Bldg., Seattle 1, Wash. (H)
 Osberg Constr. Co., 1132 N. 128, Seattle 33, Wash. (H-Hvy-RR)
 Pacific Constr. Co., 3002 16th Ave., So., Seattle 44, Wash. (H-Hvy)
 Patricelli, John, 1534 32d Ave., So., Seattle 44, Wash. (H-Hvy)
 Phillips, Alton V., 1400 W. Nickerson, Seattle 99, Wash. (B-H-Hvy)
 Pieler Constr. Co., 705 Shafer Bldg., Seattle 1, Wash. (H-Hvy)
 Port Constr. Co., P. O. Box 868, Port Angeles, Wash. (H-Hvy)
 Prepakt Concrete Company, The, 208 Columbia St., Seattle 4, Wash. (Hvy)
 Puget Sound Bridge & Dredg. Co., 2929 16th Ave., S. W., Seattle 4, Wash. (H-Hvy)
 Romano, Toney, Co., 1833 Dearborn St., Seattle 4, Wash. (Hvy)
 Rumsey & Co., 3821 Airport Way, Seattle 8, Wash. (H-Hvy)
 Russell-Gillett Co., P. O. Box 5, Cle Elum, Wash. (H)
 Scalzo, Thos., Co., 3211 Airport Way, Seattle 4, Wash. (H-Hvy-RR)
 Scarsella Bros., 14618 22d Ave., So., Seattle 88, Wash. (Hvy)
 Scheumann & Johnson, 1001 Lloyd Bldg., Seattle 1, Wash. (H-Hvy)
 Seattle Contr. Co., 101 Nickerson St., Seattle 9, Wash. (H-Hvy)
 State Constr. Co., 1245 Poplar Pl., Seattle 44, Wash. (H-Hvy)
 Stevens, A. W., Contr. Co., P. O. Box 276, Burlington, Wash. (H-Hvy)
 Stoen Constr. Co., 8406 Aurora Ave., Seattle 3, Wash. (H-Hvy)
 Superior Constr. Co., 4610 37th Ave., S. W., Seattle 6, Wash. (H-Hvy)
 Surace, J. P., Constr. Co., 3238 Seaview Ave., Seattle 77, Wash. (H-Hvy-RR)
 Sussex, R. H., 1744 State St., P. O. Box 1, Bellingham, Wash. (H-Hvy)
 Templeton, E. J., 2924 Lombard, Everett, Wash. (H-Hvy)
 Thorburn & Logozo, 4608 36th, S. W., Seattle 6, Wash. (B-H-Hvy)
 Traverso, T. W., 3006 S. 148th, Seattle 8, Wash. (H-Hvy)
 Troxell, J. A., P. O. Box 177, Enumclaw, Wash. (Hvy)
 Utility Contrs., 1043 E. 90th St., Seattle 5, Wash. (Hvy)
 Valley Constr. Co., 7722 Rainier Ave., Seattle 8, Wash. (Hvy)
 Washington Asphalt Co., 309 W. 39th, Seattle 7, Wash. (H)
 Welcome, J. J., Constr. Co., 10206 Evanston Ave., Seattle 33, Wash. (H-Hvy)
 Western Asphalt Co., 309 W. 39th, Seattle 7, Wash. (H)
 Wilder, C. V., Co., 2006 State St., Bellingham, Wash. (H-Hvy)
 Wilder, F. E., Rt. 11, Box 147, Olympia, Wash. (Hvy)

(b) SEATTLE CHAPTER

President—O. B. Daniels, O. B. Daniels & Son, 1200 Westlake, No., Seattle 9, Wash.
Manager—E. B. Hickok, 215 W. Harrison St., Seattle 99, Wash.
Telephone: AL-5433

Anderson, Allen R., 3819 10th, N. E., Seattle 5, Wash. (B)
 Armstrong & Armstrong, P. O. Box 59, Wenatchee, Wash. (B)
 Atherton Constr. Co., 1101 Terminal Sales Bldg., Seattle 1, Wash. (B)
 Baldwin, L. E., Inc., 1103 N. 36th, Seattle 3, Wash. (B)
 Barrow & Shaffer Constr. Co., Colby Bldg., Everett, Wash. (B)
 Bartram, Wilmer W., P. O. Box 502, Grandview, Wash. (B)
 Baugh Co., The, 4438 California Ave., Seattle 6, Wash. (B)
 Bennett-Campbell, Inc., 815 Seaboard Bldg., Seattle 1, Wash. (B-H-Hvy)
 Boen, Olav, Constr. Co., 3647 Stone Way, Seattle 3, Wash. (B-Hvy)
 Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle 4, Wash. (B-H-Hvy)
 Brazier Constr. Co., 309 Pontius, Seattle 9, Wash. (B)
 Buchanan, T. N., Constr. Co., 835 W. 48th St., Seattle 7, Wash. (B)
 Cawdrey & Vemo, 651 Central Bldg., Seattle 4, Wash. (B)
 Ceis, Philip L., 3112 65th, S. W., Seattle 6, Wash. (B)
 Chisholm, Ralph, Constr. Co., 1750 State St., Box 1073, Bellingham, Wash. (B)
 Clark, W. G., Co., 408 Aurora Ave., Seattle 9, Wash. (B)
 Dahlgren Constr. Co., 1700 21st Ave., So., Seattle 44, Wash. (B)
 Daniels, O. B., & Son, 1200 Westlake, No., Seattle 9, Wash. (B)
 Eiford Constr. Co., 218 Unity St., Box 357, Bellingham, Wash. (B)
 Ferguson, H. S., Co., 4627 Union Bay Pl., Seattle 5, Wash. (B)
 Gaasland Co., Inc., 1155 Ellis St., Bellingham, Wash. (B)
 Hainsworth Constr. Co., 3028 Western Ave., Seattle 1, Wash. (B)
 Hall-Atwater Co., 605 13th Ave., Seattle 22, Wash. (B)
 Henrikson Constr. Co., 4025 Stone Way, Seattle 3, Wash. (B)
 Hodges Constr. Co., Higgins Bldg., 330 2d Ave., W., Seattle 99, Wash. (B)
 Jentoft & Forbes, 910 W. 45th St., Seattle 7, Wash. (B)
 Kunej-Johnson Co., 235 9th Ave., No., Seattle 9, Wash. (B-H-Hvy)
 Larsen Constr. Co., 466 Colman Bldg., Seattle 4, Wash. (Hvy)
 Larson, Ernest, 2309 24th St., Everett, Wash. (B)
 Lease & Leigland, 1501 N. 35th St., Seattle 3, Wash. (B-H-Hvy)
 Manson Constr. & Engr. Co., 821 Alaskan Way, Seattle 4, Wash. (B-Hvy)
 McAbee, F. R., Inc., 921 Elliott Ave., W., Seattle 99, Wash. (B)

Mortensen, Nelse, & Co., Inc., 1021 Westlake, No., Seattle 9, Wash. (B)
 Mowat, A. F., Constr. Co., 2833 Eastlake Ave., Seattle 2, Wash. (B)
 Ness Constr. Co., 1125 W. 53rd, Seattle 7, Wash. (B-Hvy)
 Newland Constr. Co., 1411 Rucker, Everett, Wash. (B)
 Odegard Constr. Co., 37th Off Broadway, P. O. Box 735, Everett, Wash. (B)
 Petersen, Wm., 2915 1st Ave., Seattle 1, Wash. (B)
 Peterson, Dale R., & Co., Inc., 3753 Brooklyn Ave., Seattle 5, Wash. (B)
 Puget Sound Bridge & Dredg. Co., 2929 16th Ave., S. W., Seattle 4, Wash. (B-H-Hvy)
 Sellen, John H., Constr. Co., 228 9th, No., Seattle 9, Wash. (B)
 Shuck, E. F., 535 Pontius Ave., Seattle 9, Wash. (B)
 Slate, W. A., 8225 17th Ave., N. E., Seattle 5, Wash. (B)
 Sound Constr. & Engr. Co., 1300 Aloha St., Seattle 9, Wash. (B-Hvy)
 Strand & Sons, 3939 University Way, Seattle 5, Wash. (B)
 Teufel, Geo. E., Co., 4451 White-Henry-Stuart Bldg., Seattle 1, Wash. (B-Hvy)
 Turnbull, B. F., Inc., 4351 Leary Way, Seattle 7, Wash. (B)
 Turnquist, O. E., Constr. Co., 1305 Republican, Seattle 9, Wash. (B)
 Valle, Henrik, Co., Inc., Box 4096, Interbay Sta., 407 3d Ave., W., Seattle 99, Wash. (B-Hvy)
 Vandivort Constr. Co., No. 5 Phipps Bldg., Wenatchee, Wash. (B)
 Veale Constr. Co., 323 2d & Cherry Bldg., Seattle 4, Wash. (B)
 Walser, Don, 4213 Rucker Ave., Everett, Wash. (B)
 Warrack, J. B., Co., 400 2d Ave., W., Seattle 99, Wash. (B)
 Watts, J. C., Constr. Co., 402 Marion Bldg., Seattle 4, Wash. (B)
 Welden, O. E., 2320 Nob Hill Ave., Seattle 9, Wash. (B)
 White, Noble W., Pier 65, Seattle 1, Wash. (B)
 Wick Constr. Co., 215 W. 36th St., Seattle 7, Wash. (B)
 Wright, Howard S., & Co., Inc., 414 Pontius Ave., Box 3106, Seattle 14, Wash. (B)
 Wright, Sanford, 302 Clark Bldg., Everett, Wash. (B)

(c) SPOKANE CHAPTER

President—N. A. Degerstrom, E. 15 32d Ave., Spokane, Wash.
Secretary-Treasurer—Verne D. Warren, S. 102 Stevens St., Spokane 8, Wash.
Telephone: Main 6822

Anderson, J. S., Constr. Co., 2124 N. Waterworks St., Spokane, Wash. (H)
 Atkinson, Guy F., Co., 5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Ore. (H)
 Bair, Roy L., & Co., W. 1220 Ide Ave., Spokane, Wash. (B-H-Hvy)
 Baulne & Frieske, P. O. Box 84, Yardley, Wash. (H)

A.G.C. DIRECTORY

WASHINGTON—Continued

Bryant, J. Arlie, 528 Hutton Bldg., Spokane, Wash. (H)
 C. & E. Constr. Co., Inc., 2002 Rudkin Rd., Yakima, Wash. (H)
 Carbon Bros., 3430 N. Cook St., P. O. Box 5025, Sta. C, Spokane 13, Wash. (H)
 Castle, M. F., 10503 N. Division, Spokane, Wash. (H)
 Chief Joseph Bldrs., Bridgeport, Wash. (H)
 Clifton & Applegate Co., Box 1473, Spokane, Wash. (H)
 Collins, J. H., & Co., Walla Walla, Wash. (H)
 Colonial Constr. Co., Box 1452, Spokane 6, Wash. (H)
 Crick, Jas., & Sons, 210 Cliff Dr., Spokane, Wash. (H)
 Curtis Gravel Co., P. O. Box 106, Spokane, Wash. (H)
 Degerstrom, N. A., E. 15 32d Ave., Spokane, Wash. (H)
 Ellis Constr. Co., Ephrata, Wash. (H)
 General Construction Company, 4850 N. W. Front Ave., P. O. Box 3860, Portland 8, Oreg. (B-H-Hvy-RR)
 Grant Constr. Co., P. O. Box 351, Coeur d'Alene, Idaho (H)
 Hagman, Henry, Cashmere, Wash. (H)
 Halvorson, H., Inc., E. 4324 Trent Ave., Spokane 15, Wash. (B-H)
 Hansen & Parr Constr. Co., 1103 N. Calispel, Spokane, Wash. (H)
 Hewett, F. R., & Co., P. O. Box 46, Parkwater, Wash. (H)
 Hohner, Carl, & Son, E. 6203 Sharp, Spokane, Wash. (B)
 Inland Asphalt Co., 10th & Havana Sts., Spokane, Wash. (H)
 Joslin, C. W., & Son, 5311 E. Boone, Box 1174, Spokane 5, Wash. (H)
 Kiewit, Peter, Sons' Co., 1300 Aloha St., Seattle 9, Wash. (B-H)
 Konen, J. F., Constr. Co., 522 Park St., Lewiston, Idaho (B-H)
 Kunej, Max J., Co., N. 120 Ralph St., Box 4008, Sta. B, Spokane 15, Wash. (H-Hvy)
 Mast, Harold T., 502 S. Main St., Colfax, Wash. (H)
 Materne Bros., N. 2424 Division St., Spokane, Wash. (H)
 McAttee & Heath, P. O. Box 4083, Station B, Spokane 31, Wash. (H)
 McCartney, Birch, Veradale, Wash. (H)
 McNary Dam Contrs., P. O. Box 132, Umatilla, Oreg. (H-Hvy)
 Meyers, Walter, Hyde Bldg., Spokane, Wash. (B)
 Morin, S. G., & Sons, S. 309 Bernard St., Spokane, Wash. (B)
 Murphy Bros., 3728 E. Broadway, Spokane 10, Wash. (H)
 Oneal, C. E., Co., Inc., Box 268, Ellensburg, Wash. (H-Hvy)
 Power, Chas. A., E. 27 8th Ave., Box 1220, Spokane 5, Wash. (H-Hvy)
 S & F Constr. Co., P. O. Box 15, Yardley, Wash. (H)
 Sather & Sons, P. O. Box 197, Spokane, Wash. (H)
 Smith, Wm. A., Contr. Co., Inc., 1401 Fairfax Trafficway, Kansas City 15, Kans. (H)

Standard Asphalt Paving Co., N. 119 Post, Spokane 8, Wash. (H)
 Stone & Thaut, 1001 W. Ide Ave., Spokane, Wash. (H)
 Sullivan, D. A., Parkwater, Wash. (H)
 Weist, Ray, P. O. Box 191, Yakima, Wash. (H)
 Weller Bros., N. 633 Madelia St., Spokane, Wash. (H)
 Whitley, D. A., Co., 2417 N. Division St., Spokane 13, Wash. (H)

(d) TACOMA CHAPTER

President—J. A. Harrison, The Harrison Bros. Co., 225 Wakefield Dr., Tacoma, Wash.

Manager—C. W. Todd, 452 St. Helens Ave., Tacoma 2, Wash.

Telephone: BR 2297

Anderson Bridge Constr. Co., 4130 S. Adams, Tacoma, Wash. (H-Hvy)
 Anderson Constr. Co., 115 S. 9th St., Tacoma, Wash. (B)
 Asphalt Paving & Engr. Co., Box 356, Tacoma 9, Wash. (H-Hvy)
 Atkinson, Guy F., Co., 5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Oreg. (H-Hvy)
 Barr, G. W., Constr. Co., 8824 John Dower Rd., S. W., Tacoma, Wash. (B)
 Bergesen, Sam, 5402 San Francisco, S. W., Tacoma 9, Wash. (B)
 Bona Fide Bldrs., Inc., 2430 E. 11th, P. O. Box 1254, Tacoma, Wash. (B)
 Bonnell Constr. Co., 760½ Commerce St., Tacoma, Wash. (B)
 Briggs Constr. Co., 5119 N. 31st, Tacoma 22, Wash. (B)
 Burrows, Milone & Tucci, Inc., 3215 S. M St., Tacoma, Wash. (Hvy)
 Coast Contrs., 1624 S. Tacoma Ave., Tacoma, Wash. (Hvy)
 Construction Engrs. & Contrs., 801 Port of Tacoma Rd., Tacoma, Wash. (B-Hvy)
 Cooney, Don L., Inc., 2318 S. Tacoma Way, Tacoma, Wash. (Hvy)
 Davidson, C. F., Co., 3101 S. Lawrence, Tacoma, Wash. (B-Hvy)
 Dickson, Lige, Co., 3315 S. Pine St., Tacoma, Wash. (Hvy)
 Earley, Roy T., Co., 321 Middle Waterway, P. O. Box 1591, Tacoma, Wash. (B-Hvy)
 Freigang Constr. Co., 10310 Gravelly Lake Dr., Tacoma, Wash. (B)
 Goettling, E., & Sons, 2911 S. Chandler, Tacoma, Wash. (B)
 Graham, J. F., Rt. 7, Box 171, Tacoma, Wash. (B)
 Hall Constr. Co., 9605 DeKoven Dr., S. W., Tacoma 9, Wash. (B)
 Harrison Bros. Co., The, 225 Wakefield Dr., Tacoma, Wash. (H-Hvy)
 Hart Constr. Co., 3536 E. 11th, Tacoma, Wash. (B-Hvy)
 Homann, A. G., P. O. Box 37, Lacey, Wash. (B)
 Industrial Engrs. & Contrs., Inc., 711 Middle Waterway, Tacoma, Wash. (Hvy)
 Jones, Dolph, 2213 N. Proctor, Tacoma, Wash. (B)

Kelly, Ray R., & Co., 3111 S. Pine St., Tacoma, Wash. (B-Hvy)
 Kendall Constr. Co., 3211 Center St., Tacoma, Wash. (Hvy)
 Ketter Bros., 419 St. Helens Ave., Tacoma, Wash. (B)
 Larson, O. F., & Son, Pacific Savings Bldg., Tacoma, Wash. (B-Hvy)
 Macdonald Bldg. Co., 1517 S. Tacoma Way, Tacoma, Wash. (B)
 McPhail Engr., 3720 Center St., Tacoma, Wash. (Hvy)
 Mock, Thomas M., 1938 S. Tacoma Ave., Tacoma 3, Wash. (B)
 Ostruske-Murphy, Inc., 2907 S. A St., Tacoma, Wash. (B)
 Pacific Sand & Gravel Co., P. O. Box 628, Centralia, Wash. (H-Hvy)
 Paine-Gallucci, Inc., 1521 S. Grant St., Tacoma, Wash. (H-Hvy)
 Seines, C. S., Constr. Co., Inc., 104 S. Tower Ave., Centralia, Wash. (B)
 Sellen, John H., Constr. Co., 228 9th, No., Seattle 9, Wash. (B)
 Shotwell, J. D., 3113 S. Pine St., Tacoma 3, Wash. (H-Hvy)
 Sjoen Bros., 3411 S. Pear St., Olympia, Wash. (H-Hvy)
 Standard Constr. Co., 315 E. 25th St., Tacoma, Wash. (B)
 Strong & Macdonald, Inc., 4045 Ruston Way, Tacoma, Wash. (H-Hvy)
 Tacoma Constr. & Engr. Co., 3202 S. G St., Tacoma, Wash. (B)
 Utility Constr. Co., 4224 N. Mason, Tacoma 3, Wash. (B-H-Hvy)
 Warter Constr. Co., 7829 Pacific Ave., Tacoma, Wash. (B)
 Woodworth & Co., Inc., 1200 E. D St., Tacoma, Wash. (H-Hvy)
 Wright, Howard S., & Co., Inc., Box 3106, 414 Pontius Ave., Seattle 14, Wash. (B)

(e) EASTERN WASHINGTON BUILDERS CHAPTER

President—J. L. Hazen, Hazen & Clark, N. 1101 Howard, Spokane, Wash.
Executive Secretary—C. E. Hively, S. 18 Monroe St., Spokane 4, Wash.
Telephone: Madison 8525

AAA Constr. Co., N. 739 Helena, Spokane, Wash. (B)
 Anderson-Hall Co., 738 N. Helena, Spokane, Wash. (B)
 Bair, Roy L., Co., W. 1220 Ide Ave., Spokane, Wash. (B)
 Bengal, A. M., 1029 W. Bridge, Spokane, Wash. (B)
 Bouten, Gus J., Constr. Co., N. 627 Napa, Spokane, Wash. (B)
 Busboom & Rauh, 601 N. Cedar, Spokane, Wash. (B)
 Central Constr. Co., W. 2028 Sinto, Spokane, Wash. (B)
 Cherf Bros. Constr., Ephrata, Wash. (B)
 George, Henry, & Sons, Hutton Bldg., Spokane, Wash. (B)
 Halvorson, H., Inc., E. 4324 Trent Ave., Spokane 15, Wash. (B)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

WASHINGTON—Continued

Hazen & Clark, N. 1101 Howard, Spokane, Wash. (B)
 Hopkins, Lewis A., & Co., Box 1101, Yakima, Wash. (B)
 Kenaston & Huntley, P. O. Box 144, Lewiston, Idaho (B)
 Kiewit, Peter, & Reidesel Constr. Co., Box 1824, Spokane, Wash. (B)
 L & S Constr. Co., Moses Lake, Wash. (B)
 Lease & Leigand, 1501 N. 35th St., Seattle 3, Wash. (B-Hvy)
 McInnis Constr. Co., Hutton Bldg., Spokane, Wash. (B)
 Meyers, Walter, Hyde Bldg., Spokane, Wash. (B)
 Plath, Eric E., N. 3430 Cook, Spokane, Wash. (B)
 Ritchie, A., Co., P. O. Box 253, Walla Walla, Wash. (B)
 Rund Constr. Co., 303 Peyton Bldg., Spokane, Wash. (B)
 Sound Constr. & Engr. Co., 1300 Aloha St., Seattle 9, Wash. (B-Hvy)
 Varnum, Walter, P. O. Box 983, Coeur d'Alene, Idaho (B)

47. WEST VIRGINIA

(a) THE ASSOCIATED GENERAL CONTRACTORS OF WEST VIRGINIA, INC.

President—D. R. Agnew, Agnew Constr. Co., P. O. Box K, Roncerverte, W. Va.
 Executive Secretary—Eugene H. Brown, 613 National Bank of Commerce Bldg., Charleston, W. Va.
 Telephone: 64-431

Abbitt, W. A., Co., No. 5 Monongalia St., Charleston, W. Va. (B)
 Agnew Constr. Co., P. O. Box K, Roncerverte, W. Va. (H-Hvy-RR)
 Agsten, H. B., Jr., 702 Pennsylvania Ave., Charleston 2, W. Va. (B)
 Agsten, H. B., & Sons, Inc., United Carbon Bldg., P. O. Box 2707, Charleston 30, W. Va. (B)
 Andersons', Inc., 1500 Pennsylvania Ave., Charleston, W. Va. (H)
 Ankrom & Castin, 1040 Quincy St., Parkersburg, W. Va. (H-Hvy)
 Asphalt Prods. Co., 650 W. Race St., Martinsburg, W. Va. (H)
 Baker & Coombs, Inc., 319 Domain Ave., Box 732, Morgantown, W. Va. (B)
 Bosso & Ritchie, Inc., Ravenswood, W. Va. (H-Hvy-RR)
 Bostic, A. A., & D. M., Box 326, Rupert, W. Va. (H)
 Bowers & Chilton, Inc., 954 Montrose Dr., So., Charleston 3, W. Va. (B)
 Browder, Earl T., Inc., 611 Pennsylvania Ave., St. Albans, W. Va. (B)
 Byrum Constr. Co., The 12th & Water Sts., Wheeling, W. Va. (B)
 Charleston Concrete Floor Co., 1012 Pennsylvania Ave., Charleston 2, W. Va. (H-Hvy)
 Coast, H. M., Inc., 2222 Warwood Ave., Wheeling, W. Va. (H-Hvy)
 Coleman, L. S., Co., Inc., 209 1st National Bank Bldg., P. O. Box 189, St. Albans, W. Va. (H-Hvy-RR)

Condon-Cunningham Co., P. O. Box 65, Dunbar, W. Va. (H-Hvy-RR)
 Consolidated Engr. Co., P. O. Box 409, Wheeling, W. Va. (Hvy)
 Construction Service, Inc., Pullman Rd. at Southern R. R., Ludlow, Ky. (H-Hvy-RR)
 Dowling Constr. Co., 510 4th St., Williams-town, W. Va. (B)
 Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa. (Hvy)
 Ebeling, Robt. M., Constr. Co., P. O. Box 2182, 19 Simpson Ave., Elm Grove, Wheeling, W. Va. (B)
 Edmir Constr. Co., Inc., 2300 Blackwell Dr., Charleston 1, W. Va. (B)
 Ferguson & Edmondson Co., 412 Keystone Bldg., Pittsburgh 22, Pa. (B-H-Hvy-RR)
 Fisher, O. B., & Sons, P. O. Box 187, Logan, W. Va. (B)
 Forbes Constr. Co., Inc., 1022 1st Huntington National Bank Bldg., P. O. Box 1491, Huntington, W. Va. (H-Hvy-RR)
 G.A.V. Bldrs., Moundsville, W. Va. (B)
 Harman Bros., Box 475, Grafton, W. Va. (B-H-Hvy)
 Harris, E. L., & Son, P. O. Box 2709, Charleston, W. Va. (B)
 Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa. (H-Hvy)
 Haselbacher, Henry, & Sons, Inc., P. O. Box 1504, Clarksburg, W. Va. (B)
 Hayne Engr. Co., 122½ Capitol St., Charleston 1, W. Va. (Hvy)
 Hewitt, R. N., 703½ Pennsylvania Ave., Charleston, W. Va. (H-Hvy)
 Higginbotham, A. G., Co., Charleston National Bank Bldg., Charleston, W. Va. (B)
 Hill Co., Inc., 472 Central Ave., Oak Hill, W. Va. (B)
 Hune & Calvin, Box 362, Marietta, Ohio (H)
 Hutchinson, J. M., Sandyville, W. Va. (H-Hvy)
 Jarvis-Courtney Corp., P. O. Box 1746, Clarksburg, W. Va. (B)
 Jimison, C. H., Box 2181, Huntington 18, W. Va. (B)
 Johnson, G. C., Co., P. O. Box 949, Welch, W. Va. (B)
 Kenhill Constr. Co., 307 Duffy St., P. O. Box 2772, Charleston, W. Va. (B)
 Kuhn Constr. Co., 18th Fl., Kanawha Valley Bank Bldg., Charleston 1, W. Va. (B)
 Lewis, P. R., P. O. Box 1261, Huntington, W. Va. (B)
 Love, Inc., 510 49th St., S. E., Charleston 4, W. Va. (B)
 Lynch, Pugh & Corson, Inc., Box 664, Morgantown, W. Va. (B)
 Miller, W. Harley, 212 S. Queen St., Martinsburg, W. Va. (B)
 Monty Bros., P. O. Box 151, St. Albans, W. Va. (H-Hvy-RR)
 Mott Core Drilling Co., 830 8th Ave., Huntington, W. Va. (B-H-Hvy-RR)
 Mountain State Constr. Co., 511½ MacCorkle Ave., S. W., South Charleston 3, W. Va. (H-Hvy)
 Neighborgall Constr. Co., Guaranty Bank Bldg., Huntington, W. Va. (B)
 Orders, W. R., 2405 Kanawha Terr., St. Albans, W. Va. (H-Hvy-RR)

Parrott, B. F., & Co., Inc., 811 Boxley Bldg., P. O. Box 1791, Roanoke 8, Va. (B)
 Pellicione, D., & Co., West St. corner Lee Ave., Weirton, W. Va. (B)
 Permanent Bldrs., Inc., Ohio Ave., P. O. Box 348, Clarksburg, W. Va. (B)
 Persun Constr. Co., 604 7th Ave., Rear, Huntington, W. Va. (B)
 Plate Constr. Co., Inc., 726 Jeanette St., Parkersburg, W. Va. (B)
 Robertson-Henry Co., P. O. Box 2078, Huntington, W. Va. (H-Hvy-RR)
 Schneider, H. W., 514 George St., Parkersburg, W. Va. (B)
 Seabright Constr. Co., 4201 Wood St., Wheeling, W. Va. (B)
 Shrum, Clyde M., P. O. Box 1294, Clarksburg, W. Va. (B)
 Shuttle, A., & Co., Inc., 203 Liberty Bldg., Jenkintown, Pa. (H-Hvy)
 Smith, Carl E., Sandyville, W. Va. (Hvy)
 Smith, W. D., Co., 2624 6th St., Charleston 2, W. Va. (B)
 Smithson Constr. Co., Inc., 204 Payne Bldg., P. O. Box 1946, Charleston, W. Va. (B)
 Sollitt Constr. Co., Inc., 301 S. Columbia St., South Bend 24, Ind. (B)
 Southeastern Constr. Co., Peoples Bldg., P. O. Box 727, Charleston, W. Va. (B)
 Stephens Constr. Co., 50½ East St., Parkersburg, W. Va. (B)
 Stickley Bros., Inc., Burlington, W. Va. (H)
 Sutton Co., Inc., P. O. Box 428, Station A, Radford, Va. (H-Hvy-RR)
 Thomas Co., Inc., P. O. Box 1773, Huntington 19, W. Va. (H-Hvy-RR)
 Tinney Drilling Co., 113 W. Main St., Grafton, W. Va. (H-Hvy-RR)
 Tri-State Asphalt Corp., P. O. Box 270, Wheeling, W. Va. (H)
 Vandegrift, John L., Co., The 314 Liberty Trust Bldg., Cumberland, Md. (B)
 Vecellio & Grogan, P. O. Box 768, Beckley, W. Va. (H-Hvy-RR)
 Vecellio, Oscar, 130 Jefferson St., Beckley, W. Va. (H-Hvy)
 Viperman Constr. Co., P. O. Box 1352, 209 S. Fayette St., Beckley, W. Va. (B)
 Weaver Crane & Trucking Co., Inc., 701 Atlas Bldg., P. O. Box 3123, Charleston 1, W. Va. (Hvy-RR)
 Wilson Bros., Inc., 3328 Emerson Ave., Parkersburg, W. Va. (B)

48. WISCONSIN

(a) MILWAUKEE CHAPTER

President—H. F. Mielenz, Kroening Engr. Corp., 4500 W. Mitchell St., Milwaukee 14, Wis.

Manager—George A. Benish, 808 N. 3d St., 224-226 Century Bldg., Milwaukee 3, Wis.
 Telephone: Broadway 1-7947

Bauer-Schoeneck Constr. Co., 3411 W. Hopkins St., Milwaukee 16, Wis. (B)
 Becker, Roland H., Inc., Elm Grove, Wis. (B)
 Bentley Constr. Co., 125 E. National Ave., Milwaukee 4, Wis. (B-H-Hvy)
 Bentley, Thos. H., & Son, Inc., 3131 W. Mill Rd., Milwaukee 9, Wis. (B-Hvy)

WISCONSIN—Continued

Buchholz, Walter T., Inc., 1026 N. Jackson St., Milwaukee 2, Wis. (B)
 Carlson, Geo., Co., 4041 N. Montreal St., Milwaukee 9, Wis. (B-Hvy)
 Dahlman Constr. Co., P. O. Box 1184, Milwaukee 1, Wis. (B)
 Drescher Co., 4602 N. 20th St., Milwaukee 9, Wis. (B)
 Gebhard-Berghammer, Inc., 5420 W. State St., Milwaukee 8, Wis. (B-Hvy)
 Hunzinger Constr. Co., Sta. K, Milwaukee 10, Wis. (B-Hvy)
 Jansen, Jos. P., Co., 5376 N. Teutonia Ave., Milwaukee 9, Wis. (B)
 Klug & Smith Co., 4425 W. Mitchell St., Milwaukee 14, Wis. (B-Hvy)
 Knuth, E. C., & Co., 2919 W. Fond du Lac Ave., Milwaukee 10, Wis. (B-Hvy)
 Kroening Engr. Corp., 4500 W. Mitchell St., Milwaukee 14, Wis. (B-H)
 Lupinski, Inc., N. 1 & E. Capitol Dr., Milwaukee 12, Wis. (B-Hvy)
 Maier, Chas., & Son Co., 1633 N. 30th St., Milwaukee 8, Wis. (B)
 Oefflein, Walter W., Inc., 5345 N. Hopkins St., Milwaukee 9, Wis. (B-Hvy)
 Peters Constr. Co., 2640 N. Humboldt Ave., Milwaukee 12, Wis. (B)
 Reisinger, Robt. L., & Co., 733 N. Van Buren St., Milwaukee 2, Wis. (B-H)
 Schmitt, H., & Son, Inc., 930 E. Burleigh St., Milwaukee 12, Wis. (B-Hvy)
 Selzer-Ornst Co., 6222 W. State St., Wauwatosa 13, Wis. (B-Hvy)
 Siderits Constr. Co., 3617 N. 2 St., Milwaukee 12, Wis. (B)
 Siesel Constr. Co., 514 E. Ogden Ave., Milwaukee 2, Wis. (B-Hvy)
 Stack Constr. Co., 3303 S. 20th St., Milwaukee 15, Wis. (B-H-Hvy)
 Steigerwald, Ed., & Sons, Inc., 5310 W. State St., Milwaukee 8, Wis. (B-Hvy)
 Universal Constr., Inc., 605 S. 12th St., Milwaukee 4, Wis. (B)
 Wolff, Arthur C., Inc., 3860 N. Bremen St., Milwaukee 12, Wis. (B)

(b) WISCONSIN CHAPTER

President—Millard W. Johnson, Johnson & Henrickson, 422 Dodge St., Racine, Wis.
Vice President—Orval J. Nelson, Peter Nelson & Son, Inc., 115 S. 4th St., La Crosse, Wis.
Manager, Secretary-Treasurer—J. Harry Green, Jackman Bldg., Janesville, Wis.
Telephone: 6689
 Abraham, Chas. W., Williams Bay, Wis. (B)
 Arnold, L. G., Inc., Eau Claire, Wis. (B-H-Hvy-RR)
 Bahr Constr. Co., 2204 S. 10th St., Manitowoc, Wis. (Hvy)
 Bondgard Constr. Co., 1424 9th St., Racine, Wis. (B-Hvy)
 Central Contr. Co., 1220 Algoma Blvd., Oshkosh, Wis. (Hvy)

Cullen, J. P., & Son, P. O. Box 72, Janesville, Wis. (B)
 Cunningham Bros., Inc., 359½ E. Grand Ave., Beloit, Wis. (B)
 Findorff, J. H., & Son, Inc., 601 W. Wilson St., Madison, Wis. (B)
 Fluor Bros. Constr. Co., 48 Otter St., Oshkosh, Wis. (B-Hvy)
 Ford Constr. Co., 911 S. Jackson St., Janesville, Wis. (B)
 Fritz Constr. Co., 138 N. Frances St., Madison, Wis. (B-Hvy)
 Ganther, Ben B., Co., 22-24 Washington Blvd., Oshkosh, Wis. (B)
 Green, Chas. A., & Son, Inc., P. O. Box 195, Appleton, Wis. (H-Hvy)
 Hamann Constr. Co., 408 Commercial St., Manitowoc, Wis. (B)
 Henry, Frank J., Inc., 1120 6th St., So., Wisconsin Rapids, Wis. (B)
 Hoeppner-Bartlett Co., 631 E. Madison St., Eau Claire, Wis. (B)
 Hutter Constr. Co., 134 Western Ave., Fond du Lac, Wis. (B)
 Immel Co., 562 N. Main St., Fond du Lac, Wis. (B)
 Johnson & Henrickson, 422 Dodge St., Racine, Wis. (B)
 Jones, L. S., & Son's, Inc., 1013 Villa St., Racine, Wis. (B)
 Kennedy Constr. Co., 405 E. Grand Ave., Beloit, Wis. (B)
 Meyer, C. R., & Sons Co., 50 State St., Oshkosh, Wis. (B-Hvy)
 Meyer, Edw. H., Constr. Co., P. O. Box 705, Neenah, Wis. (B-Hvy)
 Miron, P. G., Constr. Co., Inc., 139 N. Story St., Appleton, Wis. (B)
 Molzahn, Theo. J., & Sons, Inc., Rear 1812 Madison St., Box 599, La Crosse, Wis. (B)
 Nelson & Co., Inc., 1550 Yout St., Racine, Wis. (B)
 Nelson, Geo., & Son, Inc., 1117 W. Johnson St., Madison, Wis. (B)
 Nelson, Peter, & Son, Inc., 115 S. 4th St., La Crosse, Wis. (B)
 Olmstead, A. C., 1121 Pleasant St., Janesville, Wis. (B)
 Piehl, Myron T., Williams Bay, Wis. (B)
 Precour Constr. Co., 1117 N. Bowen St., Oshkosh, Wis. (B)
 Schuman Constr. Co., 426 Church St., Kohler, Wis. (B)
 Schwalbe, F. R., & Son, 313 Rivoli Bldg., La Crosse, Wis. (B)
 Selmer Co., The, 128 N. Pearl St., Green Bay, Wis. (B)
 Severson-Schlitz, Inc., 1002 Beloit Ave., Janesville, Wis. (B)
 Smith, Chas. D., & Son, Inc., P. O. Box 508, Fond du Lac, Wis. (B-Hvy)
 Thiele Bros., Allen Grove, Wis. (B)
 Thomsen-Abbott Constr. Co., 211 S. Central Ave., Marshfield, Wis. (B)
 Turner Construction Co., 105 W. Adams St., Chicago 3, Ill. (B)
 Vogel Bros. Bldg. Co., 1321 E. Mifflin St., Madison 3, Wis. (B)
 Willis, T. S., Hayes Bldg., Janesville, Wis. (B)

Zinzow Constr. Co., Inc., 27 N. Wisconsin St., Elkhorn, Wis. (B)

49. WYOMING

(a) ASSOCIATED GENERAL CONTRACTORS OF WYOMING

President—Chas. M. Smith, Box 508, Thermopolis, Wyo.
Secretary-Treasurer—Vern Knisely, Knisely-Moore Co., Box 77, Douglas, Wyo.
 Arkwright, Stanley H., Inc., 1200 6th Ave., No., P. O. Box 1211, Billings, Mont. (H-Hvy)
 Barling, W. E., Inc., Meeteetse, Wyo. (H)
 Big Horn Constr. Co., P. O. Box 875, Sheridan, Wyo. (B-H-Hvy-RR)
 Birch, S., & Sons Constr. Co., 314 Ford Bldg., Great Falls, Mont. (H)
 Black Hills Constrs., Inc., % Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H-Hvy)
 Boatright-Smith, P. O. Box 703, Rawlins, Wyo. (H)
 Brown Constr. Co., 1530 E. Abriendo, Pueblo, Colo. (H)
 Carruth, Geo. M., & Son, Evanston, Wyo. (B-Hvy)
 Gilpatrick, M. J., Constr. Co., Riverton, Wyo. (H)
 Hesser, L. J., P. O. Box 806, Greeley, Colo. (H)
 Hopkins & McPherson, P. O. Box 977, Laramie, Wyo. (H)
 Horner, A. S., Constr. Co., 118 S. Pecos St., Denver 9, Colo. (H-Hvy)
 Inland Constr. Co., 414 Hynds Bldg., Box 197, Cheyenne, Wyo. (B-H-Hvy-RR)
 Kiewit, Peter, Sons' Co., P. O. Box 875, Sheridan, Wyo. (B-H-Hvy)
 Knisely-Moore Co., Box 77, Douglas, Wyo. (H)
 Leach Bros., Douglas, Wyo. (H-Hvy-RR)
 Lichty Constr. Co., P. O. Box 1068, Riverton, Wyo. (H-Hvy)
 Monaghan, J. H. & N. M., & Assoc. Cos., Rt. 1, Derby, Colo. (H)
 Morrison-Knudsen Co., Inc., 319 Broadway, Boise, Idaho (H)
 Nelson, N. A., Constr. Co., P. O. Box 644, Sheridan, Wyo. (H)
 Northwestern Engr. Co., P. O. Box 567, Denver 1, Colo. (H)
 Peterson, Elin E., 602 E. 15th St., Casper, Wyo. (H)
 Read, A. H., Co., 706 W. 19th St., Cheyenne, Wyo. (H-Hvy)
 Read Constr. Co., 706 W. 19th St., P. O. Box 357, Cheyenne, Wyo. (H-Hvy)
 Roscoe, W. P., Co., P. O. Box 633, Billings, Mont. (H)
 Sharrock & Pursel, Box 316, Casper, Wyo. (H)
 Smith, Chas. M., Box 508, Thermopolis, Wyo. (B-H)
 Summit Constr. Co., P. O. Box 1609, Rapid City, S. Dak. (H)
 Taggart Constr. Co., P. O. Box 560, Cody, Wyo. (H)

(Symbols following names indicate type of construction performed by company: B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

WYOMING—Continued

Teton Constr. Co., P. O. Box 197, Cheyenne, Wyo. (H)
 Woodward Constr. Co., Box 1046, Rock Springs, Wyo. (H)
 Wyoming Constr. Co., P. O. Box 3450, Laramie, Wyo. (H)
 Wyoming Improvement Co., Box 567, Denver, Colo. (B-H-Hvy)

50. ALASKA

(a) ALASKA CHAPTER

President—D. L. Cheney, S. Birch & Sons Constr. Co., 208 Central Bldg., Seattle 4, Wash.
Manager—L. A. Moore, P. O. Box 992, Anchorage, Alaska
Telephone: 2-0471

Alaska-Portland Contrs., Box 484, Anchorage, Alaska (B)
 Anderson Constr. Co., Inc., 234 Central Bldg., Seattle 3, Wash. (B)
 B & M Constr. Corp., % Res. Engr., Ladd Field, Alaska (Hvy)
 Bachner, John G., Box 1521, Anchorage, Alaska (B)
 Badraun, J. J., Box 446, Valdez, Alaska (H-Hvy)
 Baldwin, L. E., Inc., 1103 N. 36th, Seattle 3, Wash. (B-H)
 Batchelder & Hazen, Box 762, Juneau, Alaska (B)
 Berg, Chris, Inc., & Assos., Box 1402, Fairbanks, Alaska (B)
 Berg Constr. Co., Inc., Box 276, Juneau, Alaska (B-H)
 Birch, S., & Sons Constr. Co., 208 Central Bldg., Seattle 4, Wash. (H-Hvy)
 Boen-Sealand Constrs., 3647 Stone Way, Seattle 3, Wash. (B-Hvy)
 Boespflug, J. C., Constr. Co., 1912 4th Ave., So., Seattle 4, Wash. (B-Hvy)

Braund Constr. Co., Inc., 803 E. H, Box 1774, Anchorage, Alaska (B)
 Butcher, Earl L., Box 2051, Fairbanks, Alaska (B-H-Hvy)
 Butler Constr. & Engr. Co., Box 215, Anchorage, Alaska (H-Hvy-RR)
 Coker Constr. Co., Pouch #10, Anchorage, Alaska (H-Hvy-RR)
 Date, H. G., Box 258, Cordova, Alaska (B-Hvy)
 Drake Puget Sound, Alaska Div., N. O. B. Kodiak, Alaska (B-H-Hvy-RR)
 Foss, C. R., Inc., Box 112, Anchorage, Alaska (B)
 Gerwick, Ben C., Inc., Box 499, Anchorage, Alaska (Hvy)
 Grove Shepherd Wilson & Kruge, Inc., 120 6th Ave., No., Seattle 9, Wash. (B-Hvy)
 Haddock Engrs., Ltd. & Assos., Pouch 3, Anchorage, Alaska (B-Hvy)
 Hopper Co., 539 E. 5th Ave., P. O. Box 1551, Anchorage, Alaska (B)
 Hufeisen, C. Wm., Box 1194, Anchorage, Alaska (B)
 Johnson Constr. & Maintenance Co., 834 4th Ave., Anchorage, Alaska (B)
 Keil & Peterman Co., Box 770, Juneau, Alaska (B-Hvy)
 Kiewit, Peter, Sons' Co., 1300 Aloha, Seattle, Wash. (B)
 Kuney, Max J., Co., Box 4008, Station B, N. 120 Ralph St., Spokane 15, Wash. (Hvy)
 Lane, E. V., Co., Pouch 7, Anchorage, Alaska (B-Hvy)
 Lewis Constr. Co., Anchorage, Alaska (B)
 Lytle, C. F., Company & Green Constr. Co., 312 Masonic Temple Bldg., Des Moines, Iowa (H-Hvy-RR)
 Manson-Osberg Co., 1132 N. 128th St., Seattle 33, Wash. (H-Hvy-RR)
 McGillvray Bros., Box 1523, Ketchikan, Alaska (B)
 McLaughlin, Inc., Box 225, Valdez, Alaska (H-Hvy-RR)

Morrison-Knudsen Co., Inc., 603 Hoge Bldg., Seattle, Wash. (B-H-Hvy-RR)
 Mortensen Constr. Co., 1021 Westlake, No., Seattle 9, Wash. (B)
 Munter, M. P., Co., 1428 Joseph Vance Bldg., Seattle 1, Wash. (H)
 Pacific Constr. Co., 213 E. Reserve, Vancouver, Wash. (B)
 Patti-MacDonald Constr. Co., 3829 W. Pine Blvd., St. Louis 8, Mo. (B)
 Pomeroy, J. H., & Co., Inc., 333 Montgomery St., San Francisco 4, Calif. (Hvy)
 Reed & Martin, Inc., Box 451, Fairbanks, Alaska (B)
 Robinson, Howard, Co., 804 O St., Anchorage, Alaska (H-Hvy)
 Rogers Constr. Co., & Babler Bros., 11760 N. E. Glisan St., Portland 16, Oreg. (H-Hvy)
 Shaw, N. F., Inc., P. O. Box 2132, Anchorage, Alaska (B)
 Stock & Grove, Inc., Box 2051, Anchorage, Alaska (Hvy)
 Swalling Constr. Co., Inc., Box 1039, Anchorage, Alaska (B-Hvy)
 Thomas Constr. Co., Box 2266, Ketchikan, Alaska (H)
 Valle, Henrik, Co., Inc., Box 4096, Interbay Sta., 407 3d Ave., W., Seattle 99, Wash. (B)
 Warrack, J. B., Co., Box 1957, Anchorage, Alaska (B)
 Waxberg, A. E., Constr. Co., Box 1481, Fairbanks, Alaska (B)
 Williams Equip. Co., Box 1190, Fairbanks, Alaska (B-H-Hvy)
 Yett & Conley, 6500 N. E. Ainsworth St., Portland 13, Oreg. (H)

51. HAWAII

Local Member

Pacific Construction Co., Ltd., 1192 Waimanu St., Honolulu 42, T. H. (B-Hvy)

National Members

Atkinson, Guy F., Co., 10 W. Orange Ave., P. O. Box 593, South San Francisco, Calif.
 5315 N. E. 101st Ave., P. O. Box 7528, Portland 20, Oreg.
 P. O. Box 259, Long Beach 1, Calif.
 519 Symes Bldg., Denver 2, Colo.
 341 Skinner Bldg., Seattle 1, Wash. (B-H-Hvy-RR)
 Bates & Rogers Construction Corporation, 600 W. Jackson Blvd., Chicago 6, Ill.
 Rm. 1122, 209 Post St., San Francisco, Calif. (B-H-Hvy-RR)
 Byrne Organization, Inc., 2607 Connecticut Ave., N. W., Washington 8, D. C.;
 Commerce Bldg., 2d & Pine Sts., Harrisburg, Pa. (B)
 Condon-Cunningham Co., 4229 Lafayette Ave., Omaha 3, Nebr. (H-Hvy)
 Cowper, John W., Co., Inc., The, 405 Sidway Bldg., Buffalo 3, N. Y. (B)

Cranford, Frederick L., Inc., Crescent Bldg., 129 Pierrepont St., Brooklyn 2, N. Y. (Hvy)
 Dravo Corporation, The Contracting Division, Neville Island, Pittsburgh 25, Pa. (Hvy-RR)
 Foley Brothers, Inc., Westchester Lighting Co. Bldg., Vermilyea St., Pleasantville, N. Y. (Hvy-RR)
 Forcum-James Co., Dyersburg, Tenn. (B-H-Hvy)
 Ford, Bacon & Davis Construction Corp., 805 S. Grand St., Monroe, La.;
 39 Broadway, New York, N. Y. (B-Hvy)
 Fuller, George A., Company, Fuller Bldg., 597 Madison Ave., New York 22, N. Y.;
 3445 W. 8th St., Los Angeles 5, Calif.;
 111 W. Washington St., Chicago 2, Ill.;
 11 Beacon St., Boston 8, Mass.;
 Munsey Bldg., Washington 4, D. C.;
 511 Wood St., Pittsburgh 22, Pa. (B)

General Construction Company, P. O. Box 3244, Seattle 14, Wash.;
 4850 N. W. Front Ave., P. O. Box 3860, Portland 8, Oreg. (B-H-Hvy-RR)
 Harrison Construction Company, 1101 Western Ave., Pittsburgh 33, Pa.;
 Maryville, Tenn. (B-H-Hvy)
 Hydrocarbon Research, Inc., 115 Broadway, New York 7, N. Y. (B-Hvy)
 Johnson, A1 Construction Co., 608 Foshay Tower, Minneapolis 2, Minn. (H-Hvy)
 Johnson, W. L., Construction Co. and Associates, 209 E. High St., Hicksville, Ohio;
 Box 218, Bexley Sta., Columbus 9, Ohio (H-Hvy)
 Kansas City Bridge Company, 928 Broadway, Kansas City 6, Mo.;
 Rm. 205, Pioneer Bldg., Lake Charles, La.;
 Shipyard, Plaquemine, La. (Hvy-RR)
 Koss Construction Company, 205 Farm Bureau Bldg., Des Moines 9, Iowa (H-Hvy-RR)


A.G.C. DIRECTORY

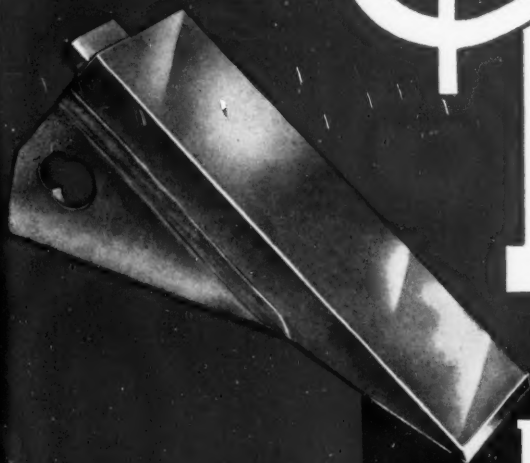
NATIONAL MEMBERS—Continued

- List & Clark Construction Company, 729 Railway Exchange Bldg., Kansas City 6, Mo. (H-Hvy-RR)
- Long Construction Company (John C. Long-Robert W. Long-Marshall Long), 810 Rialto Bldg., Kansas City 6, Mo. (B-Hvy)
- Lytle, C. F., Company, Box 206, Sioux City, Iowa (H-Hvy-RR)
- Manhattan Construction Co., Manhattan Bldg., Muskogee, Okla.;
P. O. Box 1686, Tulsa, Okla.;
1804 Classen Blvd., Oklahoma City 6, Okla.;
P. O. Box 826, Fort Smith, Ark.;
2828 Pease St., Houston 3, Texas (B-Hvy)
- Maxon Construction Company, Inc., 131 N. Ludlow St., Dayton 2, Ohio (Hvy)
- McDevitt & Street Company, 505 Builders Bldg., Box 1847, Charlotte 1, N. C. (B-Hvy)
- McLean Contracting Company, 1301-3 Fidelity Bldg., Baltimore 1, Md. (H-Hvy-RR)
- McWilliams Dredging Company, 903 S. Jefferson Davis Pkwy., P. O. Box 584, New Orleans 7, La. (Hvy)
- Merritt-Chapman & Scott Corp., 17 Battery Pl., New York, N. Y.;
New London, Conn.;
Cleveland, Ohio;
Dallas, Texas;
Boston, Mass. (B-Hvy)
- Morrison-Knudsen Co., Inc., 319 Broadway, Box 450, Boise, Idaho;
411 W. 5th St., Los Angeles 13, Calif.;
603 Hoge Bldg., Seattle 4, Wash.;
74 New Montgomery St., San Francisco 5, Calif.;
2905-6 Chanin Bldg., 122 E. 42d St., New York 17, N. Y. (B-H-Hvy-RR)
- Muirhead, Wm., Construction Company, Inc., P. O. Box 2012, E. Trinity Ave., Durham, N. C. (B-H-Hvy)
- Oman Construction Company, P. O. Box 146, Nashville 2, Tenn. (B-H-Hvy-RR)
- Prepakt Concrete Company, The, Union Commerce Bldg., Cleveland 14, Ohio (Hvy)
- Raymond Concrete Pile Co., 140 Cedar St., New York 6, N. Y.;
421 S. W. 6th Ave., Portland 4, Oreg.;
816 W. 5th St., Los Angeles 17, Calif.;
306 Fourth Ave., Pittsburgh 22, Pa.;
1625 Eye St., N. W., Washington 6, D. C.;
57 Forsyth St., N. W., Atlanta 3, Ga.;
711 Mercantile Trust Bldg., Baltimore 2, Md.;
31 St. James Ave., Boston 16, Mass.;
111 W. Monroe St., Chicago 3, Ill.;
7430 2d Ave., Detroit 2, Mich.;
1500 Walnut St., Philadelphia 2, Pa.;
333 Montgomery St., San Francisco 4, Calif.;
837 Common St., New Orleans 12, La.;
1004 Baltimore, Kansas City 6, Mo.;
155 Jones Ave., Oakland 3, Calif.;
1013 S. State St., Syracuse 3, N. Y.;
914 Main St., Houston 2, Texas;
706 Chestnut St., St. Louis 1, Mo.;
365 N. E. 55th St., Miami 38, Fla.;
992 Union Commerce Bldg., Cleveland 14, Ohio;
211 Interurban Depot Bldg., Salt Lake City 1, Utah (H-Hvy-RR)
- Reniger Constr. Co., Box 688, M. O., Lansing 3, Mich. (B-H-Hvy)
- Rust Engineering Co., The, Rust Bldg., 575 Sixth Ave., Pittsburgh 19, Pa.;
902 Denrike Bldg., 1010 Vermont Ave., N. W., Washington 5, D. C.;
519 Lincoln Bldg., 60 E. 42d St., New York 17, N. Y.;
Exchange Bldg., 2109 5th Ave., No., Birmingham 3, Ala. (B-Hvy)
- Starrett Brothers and Eken, Incorporated, 63 Wall St., New York 5, N. Y. (B)
- Stewart, James, & Co., Inc., 230 Park Ave., New York 17, N. Y.;
228 N. LaSalle St., Chicago 1, Ill.;
6104 Lee Blvd., Falls Church, Va.;
800 Employers Insurance Bldg., Dallas 2, Texas (B)
- Stone & Webster Engineering Corp., 90 Broad St., New York, N. Y.;
49 Federal St., Boston, Mass.;
33 S. Clark St., Chicago, Ill.;
557 Union Trust Bldg., Pittsburgh, Pa.;
235 Montgomery St., San Francisco, Calif.;
601 W. 5th St., Los Angeles, Calif.;
Esperson Bldg., Houston, Texas (B-Hvy)
- Teichert, A., & Son, Inc., 1931 Stockton Blvd., P. O. Box 1113, Sacramento 5, Calif. (H-Hvy-RR)
- Terteling, J. A., & Sons, Inc., P. O. Box 1428, Boise, Idaho (B-H-Hvy-RR)
- Tidewater Construction Corporation, P. O. Box 57, Norfolk 1, Va. (B-H-Hvy-RR)
- Tompkins, Chas. H., Co., 907 16th St., N. W., Washington 6, D. C. (B-Hvy)
- Tuller Construction Company, The, 95 Monmouth St., Red Bank, N. J. (B-H-Hvy-RR)
- Turner Construction Co., 420 Lexington Ave., New York 17, N. Y.;
1500 Walnut St., Philadelphia 2, Pa.;
38 Newbury St., Boston 16, Mass.;
Bankers' Bldg., 105 W. Adams St., Chicago 3, Ill. (B)
- United Construction Co., 64 W. 5th St., Winona, Minn. (H-Hvy)
- United Engineers & Constructors Inc., 1401 Arch St., Philadelphia 5, Pa. (B-Hvy-RR)
- Utah Construction Co., 1 Montgomery St., San Francisco 4, Calif.;
57 E. 4th, So., Salt Lake City 10, Utah (B-H-Hvy-RR)
- Vermilya-Brown Company, Inc., 100 E. 42d St., New York 17, N. Y. (B)
- Virginia Engineering Co., Inc., 80 29th St., Newport News, Va. (B-H-Hvy-RR)
- Walsh Construction Company—
Davenport, Iowa
General office:
122 E. 42d St., New York 17, N. Y.
District office:
785 Market St., San Francisco 3, Calif. (B-Hvy-RR)
- Webb, Del E., Constr. Co., P. O. Box 4066, Phoenix, Ariz.;
5101 San Fernando Rd., W., Los Angeles 39, Calif. (B-Hvy)
- Western Contracting Corporation, 400 Benson Bldg., Sioux City 15, Iowa;
907 Transamerica Bldg., 649 S. Olive St., Los Angeles, Calif. (H-Hvy)
- Wigton-Abbott Corporation, 1225 South Ave., Plainfield, N. J. (B)
- Winkelman, D. W., Co. Inc., 205 Harrison St., Syracuse 2, N. Y. (H)
- Winston Bros. Company, 1470 Northwestern Bank Bldg., Minneapolis 2, Minn.;
1532 S. California Ave., Monrovia, Calif. (B-H-Hvy-RR)
- Wunderlich Contracting Company, 206 Patterson Bldg., Omaha 2, Nebr. (H-Hvy)
- Zachry, H. B., Co., P. O. Box 2570, San Antonio, Texas (B-H-Hvy-RR)

(Symbols following names indicate type of construction performed by company; B—Building; H—Highway; Hvy—Heavy; RR—Railroad.)

H

Teeth that

really dig



for shovels, draglines,
 trench hoes, clamshells,
 trenchers, rippers, scar-
 ifiers.

H & L

TOOTH COMPANY

(Pioneer Manufacturers of Two-Part Teeth)

1540 SOUTH GREENWOOD AVENUE
 MONTEBELLO CALIFORNIA

DEALERS

ALABAMA

Birmingham & Montgomery
 Lorry & Co. Machinery Co.

ARIZONA

Phoenix
 Equipment Sales Company

ARKANSAS

Little Rock
 Clark Equipment Company

CALIFORNIA

San Francisco, Sacramento
 Edward E. Brown Company
 San Bernardino
 Hopper Machine Works, Inc.

COLORADO

Denver
 Houser Equip. & Supply Co.

FLORIDA

Miami
 Liberty Machinery Co.

GEORGIA

Atlanta & Macon
 Tri-State, Inc.
 Albany
 Tri-State Albany, Inc.

IDAHO

Boise
 Olson Mfg. Co.

ILLINOIS

Chicago
 Rockwell Equipment Co.

KENTUCKY

Louisville
 Williams Tractor Co.

LOUISIANA

Shreveport
 Construction Machinery Corp.

MASSACHUSETTS

Boston Heights
 Condit, Inc.

MICHIGAN

Ann Arbor
 Equipment, Inc.

MISSOURI

St. Louis
 John F. Huber Tractor Company
 Kansas City
 Rockwell Equipment Co.

MONTANA

Butte, Missoula, Great Falls
 Bulk-Ferry Machinery Co.

NEVADA

Reno
 C. D. Reader Equipment Co.
 Sierra Equipment Co.

NEW MEXICO

Albuquerque
 Construction Equipment &
 Supply Co.

OKLAHOMA

Tulsa
 Personnel Equip., Inc.

OREGON

Portland
 Edward Cooper Corp.

PENNSYLVANIA

Pittsburgh
 Atlas Equipment Corp.
 Philadelphia & Harrisburg
 Federal Machinery Co.

SOUTH CAROLINA

West Columbia
 State Machinery & Supply Co.

TENNESSEE

Knoxville & Nashville
 Dumpster Serv., Inc.
 Memphis
 Tri-State Equipment Company

TEXAS

Dallas
 Shaw Equipment Company
 El Paso
 Construction Equipment &
 Supply Company

Houston
 Browning-Pinto Machinery Co.
 Lubbock
 Fred Barryhill Equipment Co.

UTAH

Salt Lake City
 Nelson Equipment & Supply
 Company

VIRGINIA

Richmond
 J. W. Brown

WASHINGTON

Seattle
 Edward Cooper Corp.
 Spokane
 Modern Machinery Co., Inc.

WISCONSIN

Milwaukee
 Rockwell Equipment Co.

CANADA

Vancouver, B. C.
 Collins Machinery Ltd.

HAWAII

Honolulu
 Edvard E. Brown Co.
 of Hawaii, Ltd.

Spot

MORE LOADS



FASTER



EASIER



SAFER!

with a

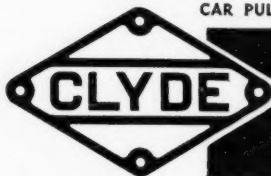
CLYDE HOIST

The ease of operation of Clyde Band Friction Hoists permit the operator to concentrate all of his attention on the safe, sure, accurate spotting of loads. Convenient and easily-operated controls practically eliminate fatigue . . . and the consequent slowing down and dangerous operations by a tired-out operator. Smooth, positive engagement and release eliminate shock loads on cable and hoist and give split-second control at all times!

Clyde Band-Friction Hoists are available in one, two and three drum models with nominal line pulls to 21,000 lbs. and line speeds to 400 f.p.m.

Circular MP-48 gives complete information and specifications on these hoists . . . time savers and money makers for all construction jobs. Write for it TODAY!

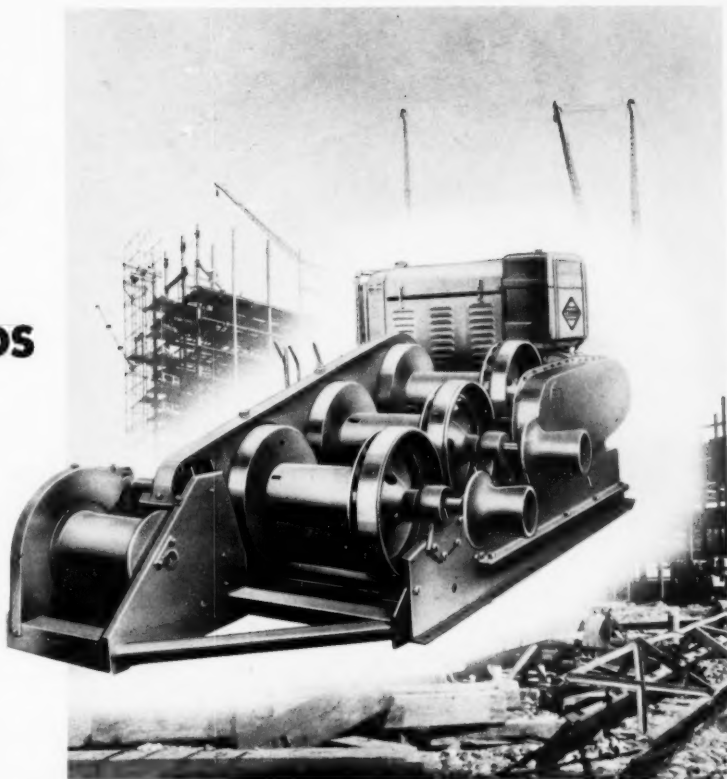
WHIRLEYS • DERRICKS • HOISTS • BUILDERS TOWERS •
CAR PULLERS • HANDI-CRANES • ROLLERS



ESTABLISHED 1899

CLYDE IRON WORKS, Inc.
DULUTH 1, MINN

Subsidiary of Barium Steel Corp.



Clyde Internal Friction Bands Dissipate Heat
FASTER, LAST LONGER, ADJUST EASIER!

Friction bands on Clyde Hoists are inside the friction drum, thus permitting the heat to be carried away as it is generated — something impossible when the band surrounds the outside of the drum and virtually forms an insulating blanket around the heat generating surfaces.

At those infrequent times when adjustment needs to be made, it can be done simply and quickly! **FRICITION LININGS CAN BE REPLACED WITHOUT REMOVING THE DRUMS!** Check all the advantages of a Clyde Band-Friction Hoist before you purchase ANY hoist!